INFLUENCES OF ASPIRATIONS AND EXPECTATIONS ON CONTEST PERFORMANCE AT THE NATIONAL FFA AGRICULTURAL MECHANICS CAREER DEVELOPMENT EVENT, 2001-2006

A Thesis

by

TRAVIS SCOTT CLARK

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

December 2007

Major Subject: Agricultural Education

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Approved by:

Chair of Committee,	Gary Briers
Committee Members,	Andy Herring
	James Lindner
Head of Department,	Christine Townsend

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ABSTRACT

Influences of Aspirations and Expectations on Contest Performance at the National FFA Agricultural Mechanics Career Development Event, 2001-2006. (December 2007)

Travis Scott Clark, B.S., Texas A&M University

Chair of Advisory Committee: Dr. Gary Briers

The purpose of this study was to examine how performance expectations influence contest performance at the National FFA Agricultural Mechanics Career Development Event. The population for this study included all participants at the national contest in the years 2001 through 2006 with a total response of 976 participants. Data were collected using a 20 item questionnaire administered after the contest. The questionnaire included questions to measure current educational status, aspired education and career, contest expectations, evaluations of contest relatedness to previous coursework and difficulty, preparation, and interest in agriculture and agricultural mechanics. Contest scores were used to quantify participant performance. Career Development Events are an important component to a complete FFA program used to enhance student learning. Expectations and aspirations may have an effect on student learning.

Of the respondents, 61.7% had not graduated from high school. In addition, 86.4% planned to pursue education after high school, and 30.2% planned to pursue a career related to agricultural mechanics while another 40.4% planned to pursue a

separate agriculturally related career. The mean response for expected individual finish was 55th place out of about 163 contestants, expected team finish was 15th place out of about 44 teams participating annually, and 43.1% expected to finish second on their team.

The most statistically significant predictors of contest performance were expected individual and team finish. Participants who expected to perform better performed better. High education aspirations and career aspirations in agriculture also produced a significant influence on performance. The number of contests participated in before national contest, the relatedness of the contest to previous coursework, and the difficulty of the contest produced a significant direct influence on performance. The longer the participant has been in school and as the participant takes more agriculture courses, performance significantly increased. The interest of the participant in agriculture and agricultural mechanics positively influenced performance.

Further research was proposed to specifically differentiate between aspirations and expectations, and measure performance aspirations and expectations before and after the contest. As agricultural science education moves toward a more multidisciplinary approach, it would be useful to determine how math and science courses influence performance.

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CHAPTER I

INTRODUCTION

Introduction

At the 1972 National FFA Convention, the first National Agricultural Mechanics Career Development Event occurred. Since then, the contest has been held every year. Agricultural Science Education offers students the opportunity to develop leadership skills, personal growth, and career success through classroom instruction, FFA, career development events, leadership development events, and supervised agricultural experiences. FFA is one segment of the complete program. Classroom instruction supported by supervised agricultural experience and FFA comprise the complete program. With 46 different states competing at some point in the National FFA Agriculture Mechanics Competition during the period of the sample of this study, opportunities to compete and participate in a complete agricultural science program are abound. "It takes a certain level of aspiration before one can take full advantage of opportunities that are clearly offered" (Shinn, 1987, p.1). FFA offers many opportunities to members. Each of these opportunities is designed to provide an exceptional learning experience. Each Career Development Event or Leadership Development Event also provides an opportunity for the students to showcase their abilities and knowledge through an FFA competition. Individuals who undergo any task

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This thesis follows the format and style of the *Journal of Agricultural Education*.

have certain expectations for their performance. Participants of the national contest also have expectations for their success, but how do these expectations translate into performance?

Statement of Problem

Students engaged in the National FFA Agricultural Mechanics Contest have advanced through competitions at various local, area, and state contests. Participants bring a wealth of prior contest experiences, practice, knowledge, and skills sets which allow a practical idea of their future performance in the national contest. It is theorized that expectations of performance can be either beneficial or detrimental to performance (Brown & Marshall, 2001). To further understand and predict the performance of the participants at the national level, an in depth examination into the relationship between the expectations and aspirations of the participants and actual performance is prerequisite.

Purpose of the Study

The purpose of this study was to examine the variables that account for and predict contest performance including: their current educational level, time spent preparing, number of adults who assisted preparation, previous contest experience, prior agricultural science education, perceived relatedness of the contest to their prior agricultural science coursework, when they set a goal to compete, and aspired career choice and educational desires. Also, more specifically, this study attempted to

determine how the aspirations and expectations of the contestants translated into contest performance by taking into account how the contestants felt they would finish within their own team, finish as a team, and finish as an individual.

Objectives

The objectives used to accomplish the purpose of this study were as follows:

1. Describe the participants in the National FFA Career Development Event.
2. Determine how the expectations for achievement translated into contest performance.
3. Determine how aspirations for future career and education influenced contest performance.
4. Determine if prior contest experience, goals, and preparation had an influence on contest performance.
5. Determine if interests or coursework experience had an influence on contest performance.
6. Determine if any of the variables served as significant predictors of contest performance.

Theoretical Framework

Achievement theory searches to predict behavior given certain variables. Bandura (1997) proposes the sense of self-efficacy of an individual has an effect on motivation because humans desire self-efficacy and competence. The extent to which an

individual believes he has control over the task, his or her ability, and effort has an effect on expectancy and performance (Weiner, 1985). Locus of control affects performance because the individual perceives his or her locus of control as either internal or external to the individual (Knowles, Holton, & Swanson, 2005). Expectancy relates to the perceived effort, ability, luck, and task difficulty of the individual, and how successes and failures are attributed to each characteristic (Gagné, Yechovich, & Yechovich, 1993). Individuals are also motivated by the need to feel self-determined (Deci & Ryan, 1985). Events that feel forced yield less motivation and performance than those which are self-determined. The value the participant places on the task from an intrinsic, useful, and cost basis point of view effect expectations (Wigfield & Eccles, 2000). The variables combined are grounds for both short and long range expectancies and aspirations for performance.

Null Hypotheses

The following null hypotheses were tested to meet the outlined purposes of this study.

1. Individual and total contest performance will not be significantly influenced by contest year.
2. Individual and total contest performance will not be significantly influenced by whether the participant is in or has finished high school at the time of the national contest.

3. Individual and total contest performance will not be significantly influenced by the aspired career choice of the participant.
4. Individual and total contest performance will not be significantly influenced by the educational aspirations of the participant.
5. Individual and total contest performance will not be significantly influenced by the expected finish of the participant within his or her own team.
6. Individual and total contest performance will not be significantly influenced by when the participant set a goal to compete in the national agricultural mechanics competition.
7. Individual and total contest performance will not be significantly influenced by whether the student would enroll in agricultural sciences courses if he or she had it all to do over.
8. Individual and total contest performance will not be significantly influenced by whether the participant would attempt to qualify for a national agricultural mechanics team again if he or she had it to do over.
9. Individual and total contest performance will not be significantly influenced by the number of contests the participant had competed in before the national contest.
10. Individual and total contest performance will not be significantly influenced by the number of agricultural science courses the participant has taken before the national contest.

11. Individual and total contest performance will not be significantly influenced by how related the participant perceive the national contest to previous agricultural mechanics coursework.
12. Individual and total contest performance will not be significantly influenced by the evaluation by the participant of contest difficulty.
13. Individual and total contest performance will not be significantly influenced by the number of adults who assisted in contest preparation excluding the agricultural science teachers.
14. Individual and total contest performance will not be significantly influenced by contest year, the expected finish of the participant within his or her own team, or the interaction of the two.
15. Individual and total contest performance will not be significantly influenced by whether the participant is in or has finished high school at the time of the national contest, the educational aspirations of the participant, or the interaction of the two.
16. Individual and total contest performance will not be significantly influenced by the aspired career choice of the participant, how related the participant perceive the national contest to previous agricultural mechanics coursework, or the interaction of the two.
17. The number of contests the participant had competed in before the national contest, the number of adults who assisted in contest preparation excluding the agricultural science teachers, the amount of time spent preparing for the national

contest, the educational aspirations of the participant, the expected team finish of the participant, and the expected individual finish of the participant will not be a significant influence on individual or total contest performance.

Delimitations

This study was delimited to the 976 participants of the National FFA Agricultural Mechanics Career Development Event who competed in the years 2001 through 2006. This sample is taken as a slice in time sample as data had been collected annually since 1978.

Definition of Terms

Career Development Events (CDE): An event designed to allow the students demonstrate their skills in a competitive setting. There are 23 major areas that CDEs cover. The goal of CDEs is to enhance classroom instruction (National FFA Organization, 2007).

Individual Contest Performance: The sum of the scores of the individual on the 10 separate contest activities that make up the contest excluding the team project score.

Total Contest Performance: The sum of the scores of the individual including the 10 separate contest activities and one-third of the team project score.

CHAPTER II

REVIEW OF LITERATURE

FFA and the Agricultural Mechanics Contest

FFA contests are thought of as a practical and rich learning experience. Schumann (1977) wrote that teachers should become involved in FFA contests because contests improve instructional program value and builds community support by enhancing the visibility and the image of the FFA program. To successfully incorporate contests into classroom instruction, one needs to teach all the students in the related courses the skills needed with additional instruction and practice occurring outside of regular class time. In addition, the team and instructor should work together to set goals at a high standard while installing a system of feedback to ensure the contest has extra-educational value. Shumann warned that an FFA contest "should be the means to an end and not an end in itself." (p. 65) To accomplish this feat, the contest should be a positive factor toward program success with education as the proper overall goal of the endeavor.

The FFA Organization is known for providing leadership and development opportunities to students engaged in an agricultural education program (Croom, Moore, & Armbruster, 2005). Students who pursue careers in agriculture benefit from FFA by building agricultural literacy, communication skills, beneficial work and study habits, and other employability characteristics. This study was conducted to determine why students participate in national CDEs and to describe factors related to participation. The population and sample were all 2003 CDE participants at the National FFA Convention. The survey instrument was completed by 976 student participants. The

instrument was a Likert-based questionnaire developed by educators closely familiar with FFA CDEs. The reported reasons for student participation in the CDEs were mainly because it related to their career choice. Additional reasons included: leadership development, scholarships, travel and fun, and competition. Respondents also reported classroom instruction assisted in the laying groundwork for the event, and participation equipped them for employment by adding career preparation. The majority of participants, 68.6%, planned to attend some form of post-secondary education. Only 13% of the participants planned to follow careers in agriculture. A wide range of times were categorically reported for team training. Training times were reported as being during class time, after school, before school, on weekends, and on student holidays. Further research was proposed to study program planning and allocation of resources to agricultural science education programs.

Students become or fail to become active members in FFA for many reasons (Croom & Flowers, 2001). This study sought to investigate opinions from both members and non-members of FFA about their perceptions and relevance of FFA as a worthwhile endeavor. A means to measure the relevance of the program has been posited as an analysis of membership numbers. The more members the organization has can be used to predict the perceived relevance of the organization to the students and can provide analysis of student needs and interests. The programs of the FFA organization are directed toward assisting the students learn to set and reach their own goals. A Likert scale instrument was completed by 404 high school students. Members and non-members agreed that FFA assisted students with choosing a career, provided students

with leadership skills, assisted students with educational goals and communication skills, and provided students with opportunities to travel and win awards and scholarships. Croom and Flowers recommended similar research be conducted into student perceptions related to specific events and programs to enhance future efforts by these bodies. Also, further research should be conducted to see which specific part of the program is the most effective at providing value to the member.

Talbert and Balschweid (2004) examined FFA members and non-members who are agricultural science students to investigate influences for student enrollment. The sample for this descriptive study was taken from the mailing list of the *FFA New Horizons Magazine*. A total of 500 member subjects were mailed questionnaires. There was a useable sample of 221 agricultural science students. The non-member agricultural education students were cluster sampled. Members reported that their agricultural science teacher was most influential in their membership, while self, parents, siblings, and friends were listed as the next most influential, respectively. Non-member agricultural science students reported a lack of interest in FFA, lack of time, lack information about the organization, and lack of financial resources as the key reasons for not joining FFA.

Buriak, Harper, and Gilem (1986) conducted a study to determine methods to analyze the effectiveness of the National FFA Agricultural Mechanics Contest internally by analyzing scores of the contestants from 1979 through 1984. The data were collected from all participants in the years ranging 1979 through 1984 accessed from the National FFA Organization. The researchers used ANOVA, Duncan's Multiple Range Tests, and

Pearson Product-Moment Correlation Coefficients to analyze the acquired data. To assist in the improvement of the Agricultural Mechanics Contest the following results were found and conclusions proposed. There were significant differences based on region. Two of the areas of the contest produced almost no variance toward contestant score. The written examination produced the most variation upon the scores of the competitors. Finally, they concluded that contest score evaluation is important to ensure score variation, and future evaluations are needed which should not be limited to agricultural mechanics.

A common theme among agricultural education professionals described the interrelation and importance of a three facet approach to agricultural education including classroom instruction, supervised agricultural experiences, and FFA (Johnson, 1991). Johnson underwent the task to determine factors related to student achievement in the Mississippi Agricultural Mechanics State Contest. To do so, the participant demographics were collected using a questionnaire instrument, and contest scores were collected after the event. These characteristics were analyzed independently by means, standard deviation, and percentages. The relationship between student demographics and contest scores were analyzed by using Pearson Product Moment Correlations, point-biserial correlation coefficients, and stepwise multiple regression. Findings show that the agricultural mechanics contest had only male participants. When comparing scores with demographic information it was found that forty-two percent of the variance was comprised of average grade in agriculture classes (29.7%) and students who lived or

worked on a farm (12.1%). This study also concluded that studies such as this can have important implications toward planning, evaluation, and revision of FFA contests.

A further longitudinal study by Johnson (1993), compiled three years worth of data in the Mississippi Agricultural Mechanics State Contest. Again, demographic data about the contestants and the scores of the contestants were collected. The data were analyzed for means, standard deviations, and percentages. Statistics to determine correlation were also conducted. The gender gap had not narrowed since the original research study showed participants as all males. The use of a calculator was a new variable and was used in this study which was not available for the 1990 study; therefore, the year 1990 was excluded from the stepwise regression that tested the correlations between predictor variables. Thirty-five percent of the variance of total contest scores can be attributed to the use of a calculator and number of years of mathematics completed. Johnson recommended further research to explain causal relationships for achievement, and a recommendation was made to the contest planners to move the contest segments to where more success is possible while retaining the ability of the contest to discriminate on the basis of knowledge and skills.

Shinn (1987) discussed the importance of the FFA as a youth organization at the 1987 winter meeting of the American Society of Agricultural Engineers. FFA promotes team and individual development that recognizes achievement while enabling quality programs of instruction. The agricultural mechanics contest "incorporates activities emphasizing skills, problem solving and cognitive abilities realistic to the agricultural industry," (p. 1) while making an endeavor to support the purposes of classroom

instruction by the selection of activities. Contestants of the 1986 National FFA Agricultural Mechanics Contest completed a questionnaire which was used to formulate this descriptive study. All of the contestants had completed at least one year of vocational agriculture with over half having completed three or more years of agricultural study. The contest was intended to enhance classroom instruction; however, 53% reported that the contest paralleled classroom instruction. Twenty-seven percent said the contest was only indirectly related, and finally, 20% stated the contest had no relationship or little relationship to the classroom. Eighty-five percent of the respondents planned to attend some form of higher education. Just more than half intended to enter an agricultural career with a quarter of those respondents entering careers in agricultural mechanics.

Theories of Motivation

The word motivation was derived from the Latin root meaning “to move” (Eccles & Wigfield, 2002). Motivational theory is a popular area of study and has branched widely into different fields and focuses. Modern theories are centered on beliefs, values, and goals in action. This literature review discusses motivation theory in three broad categories. The first group of theories encompasses individual thoughts on task competence and success expectancies. The second group of theories discuss why individuals are motivated to perform and achieve. Finally, the third category in this literature review includes theories rooted in the combination of expectancy and value.

Expectancy Theories of Motivation

Theories that deal with expectancies for success and achievement have been focused on the efficacy of the individual and their competence. Expectancy theories of motivation set out to study the answer of the individuals to the question of whether they can successfully complete a task. Affirmative answers to this question tend to yield higher performance and better further motivation. Self-efficacy theory and control theory are discussed in this section.

Self-Efficacy Theory

A model proposed by Bandura (1997) showed that perceptions of efficacy had an effect on motivation. Self-efficacy as defined by Bandura is the confidence level the individual displays in their ability to successfully complete a course of action in order to solve a problem or complete a task. This model comprises three dimensions that affect the self-efficacy of an individual. The self-efficacy of an individual may vary by any combination of strength, generality, and difficulty level. Bandura also discussed a second type of expectancy belief, outcome expectations. Outcome expectations are beliefs that outcomes are caused by specific behaviors. The distinction between these two beliefs is important because an individual may think a specific action can cause a favorable outcome yet they are unable to produce that specific action. This theory has successfully predicted that high expectations are a positive factor in performance across a range of fields (Bandura et al., 2001).

Control Theories

Knowles, Holton, and Swanson (2005) wrote that locus of control is defined how individuals attribute the cause or control of actions as either internal or external to the individual. When the event is attributed to something outside of their control, the individual is said to possess an external locus of control. An internal locus of control occurs when the cause or control of an event is attributed to something intrinsic. These people are referred to as internals. Success has been demonstrated to be positively related to the amount of control the individual thinks he or she have over the event. Connell (1985) added a third dimension to the locus of control model by adding the unknown control. Connell demonstrated that having an unknown locus of control is detrimental to motivation.

Theories Based on Reasons for Motivation

An important field in motivation is finding the reason an individual may or may not possess motivation to complete a specific task. The motivational theories in the preceding section discuss ideas dealing with if the individual can complete the task. An individual may possess all of the competence to complete a task but not have the motivation to complete the task. This section deals with the reasons for motivation by discussing intrinsic motivation theories and goal theory.

Intrinsic Motivation Theories

Individuals who are intrinsically motivated enlist in activities and tasks that interest them, cause them self-fulfillment, and cause them enjoyment. Extrinsic motivation deals with seeking rewards exterior to the individual such as an enhanced

view from their peers or monetary gains. This section discusses the intrinsic motivation theories of self-determination theory and goal theory.

Self-Determination Theory. Self-determination theory was proposed by Deci and Ryan (1985) in a model that integrated two perspectives on human motivation. The motivational perspectives are that humans want to keep a certain level of stimulation and that humans have a need for competence and self-determination. The point was also made that humans only display intrinsic motivation when they feel competent about the task and self-determined action is required. Self-determination theory states that humans are proactive organisms who can be helped or hindered by natural functioning in a social context (Deci, Eghrari, Patrick, & Leone, 1994). This theory uses the concepts of introjection and integration to describe the methods of internalization that results in regulation. Introjection is conceptualized as the suboptimal internalization resulting in internally controlling regulation; whereas, integration is optimal internalization causing self-determined behavior. Introjection results in one acting because one feels one has to which leads to tension and pressure. Integration results in one acting because value apparent in the activity, and then, one accepts full responsibility for the completion of the action. These processes are described as naturally occurring and intrinsic with the context of the action acting as a variable on the facilitation of either introjection or integration. Social context supports or fails to support self-determination and leads to introjection or integration being dependant on context.

Self-determination theory has also been studied to determine the effects of the quality of motivation (Vansteenkiste, Lens, & Deci, 2006). Self-determination theory

explains differences in the strategies, persistence, and performance of students. The type or kind of motivation that brings about behavior is described by the term quality of motivation. A person can either be intrinsically or extrinsically motivated. Autonomous motivation involves free volition of choice about the action, and in contrast, controlled motivation causes motivation to be pressured or forced. Intrinsic motivation is considered autonomous motivation while extrinsic motivation is controlled motivation. Students who value the task will be more autonomously motivated and will be more successful at completing the task. The goal of the action also determines the type of motivation. The goal of an activity which causes intrinsic motivation is the end in itself. The goal of an activity which causes extrinsic motivation tends to be the means to another future end.

Flow Theory. Csikszentmihalyi (1988) wrote about his theory of intrinsically motivated behavior from subjective experience that occurs when an activity is pursued. Flow theory is described by the model that produces five stages from which the emotional state of an individual flow when fully engaged in an activity. The first stage of the flow involves feeling emotionally immersed in the activity. The second stage involves combining awareness and action. The third stage occurs when attention is limited to the activity. The forth stage involves the lack of self-conscious behavior, and the fifth stage occurs when the subject has a feeling of control over the event. The actor must view that task or event as requiring higher level skills. When an actor experiences flow, it is as if the actor was enjoying a reward; therefore, the actor is more likely to repeat the action that caused the initial success.

Goal Theories

Performance approach goals place the importance of the achievement task into the performance of the task (Midgley et al., 1998). Performance avoidance goals tend to produce disengagement so that the individual will not look unable or incompetent in front of others. Performance approach goals have been found to have a positive relationship with achievement and motivation.

Ames and Archer (1988) proposed that students can approach a task with two goal orientations. Students place learning and task mastery as the primary goal in the mastery goal orientation. The task or information becomes the object of value in this orientation, and mastery is caused by effort. The opposing orientation is called performance goal orientation. This orientation places ability as the primary goal. Ability in this context may manifest itself as out-performance of others or displaying signs of sufficient ability. Objects exterior to the student such as social situations like wanting to be on the team cause the student to focus toward the performance goal orientation. When students have an intrinsic desire to learn the information as in mastery goal orientation, they tend to perform better.

A similar study conducted by Middleton and Midgley (1997) used the same theory but added a third dimension. The purpose of their study was to determine if task-goal orientation, performance-goal orientation, or performance-avoidance goals were related or if they hindered or helped the success of the students in their sample. Task goal orientation was defined as success because of mastery where effort is the variable adding to success. This study found that task goal-orientation did positively relate to

academic effectiveness. Performance-goal approach was defined as showing ability as compared with others. This becomes more important than the task as a whole. This orientation was not found to enhance successful learning. Performance-avoidance goals are defined by this study as the desire to not fail in front of others. Students with this orientation tend to not ask help when needed and display greater anxiety during evaluations. This orientation was found to be negatively related to academic performance.

A trichotomous model of achievement motivation has been proposed by McGregor and Elliot (2002). The model focused on three independent achievement goals. Performance-approach goals centers on the competence of a person relative to the competence of others. The avoidance of incompetence relative to others is performance-avoidance goals. Finally in the trichotomy, mastery goals focus on task mastery through the development of competence. Achievement tasks are not a remote independent event, but are sequences of events. The events can be simplified into the following segments. Prior to task engagement, an individual appraises the task, seeks requirements for success, and sets goals. The individual then completes the task. Finally, following the task the individual reacts to the evaluation, responds to feedback, and reacts to the experience by setting goals for the next stage. The research used 150 undergraduates enrolled in a psychology course. The students were asked in a questionnaire about their expectations and goals for the course. This design was used to test the trichotomous model. All arms of the trichotomous model were supported by the results of this study.

Expectancy and Value Theories

This section of the literature review discusses the two prominent theories that combine the previous two sections including expectancy theory and value theory. The following two sections are over the attribution theory of motivation and the expectancy-value theory of motivation.

Attribution Theory

Attribution theory provides explanations for why some achieve at a task while others fail (Gagné, Yekovich, & Yekovich, 1993). Attribution theory denotes thought as having a key role in achievement motivation. McMahan (1973) wrote about the four attributions of causality for success or failure. The attributions were: ability, effort, task difficulty, and luck. These four attributions have two causal factors. The stability of the attribute pertains to the degree of fixed or variable stability of the attribute (McMahan). For example, ability and task difficulty are thought of as fixed stability; whereas, luck and effort is variable stability. The second causal factor is locus of control. Locus of control is closely linked with attribution theory of motivation. Ability and effort are thought to be internal loci while task difficulty and luck are thought to be external loci. McMahan tested the hypothesis that disconfirmation of prior expectancy will be attributed to variable factors and confirmation of prior expectancy will be attributed to fixed factors. The sample consisted of 109 sixth-grade students, 81 tenth-grade students, and 146 college students. A task was presented to the participants that could be varied in difficulty. After each task was complete, the participants were asked a set of questions to determine attribution. Findings indicate that a larger spread between expectancy and

outcome will be attributed more toward effort or luck. Treatment groups were comprised of groups of manipulated failures or successes. In the groups destined for failure, task difficulty became largely the reported attribution.

Weiner (1985) added a third dimension to the attribution theory of motivation. Weiner supported the inclusion of the causal attributions of stability and locus of control, but added controllability. Many confuse controllability with locus of control. If one attributes success or failure to an internal attribute such as aptitude, then one cannot control the event. Controllability differentiates between attributions that one could control. For example, one could control their skill and knowledge, but cannot control preexisting aptitude, the actions of others, or luck. This idea led Weiner to believe that how performance for a specific task is perceived has an effect on how it will be attributed. Problems arose with the simplicity of this model because of individuality. Ability is normally considered a stable trait, however if skills or knowledge can improve, then ability can become an unstable factor. The same production works for effort attribution. If someone is industrious or languid, task difficulty could be changed dependent on the task, and luck could be attributed as a personal characteristic.

Expectancy-Value Theory

A popular theory in achievement motivation is expectancy-value theory (Wigfield & Eccles, 2000). This theory posits that choice, persistence, and performance can be explained by the belief of the subject on how well they will perform and the extent to which they value the endeavor. High expectations and positive values positively influence achievement, performance, persistence, and effort. Factors that

influence the level of expectancy and value are thought to be ability, task difficulty, and goals. Ability beliefs can be defined as the perception of competence by an individual. Expectancy beliefs are focused on future achievement or performance while ability beliefs are focused on present ability. The four variables that are thought to affect achievement values are attainment value, intrinsic value, utility value, and cost. An attainment value is defined as the importance the actor places doing the task well. Intrinsic value is the enjoyment one gains from the task or the interest an individual places on the subject or event. Utility value is conceptualized by the usefulness of the task to future or current goals. Finally, cost is defined as how the engagement in one action limits the ability of the actor to engage in another, causes performance anxiety, or adds the fear of failure into the model.

Vroom (1970) set out to determine the nature of the relationship between motivation and performance. Vroom wrote about three different theories of the relationship. The first theory stated that performance and motivation have a positive linear relationship. As motivation increases, performance was said to increase. The second theory was a negatively accelerated curve always approaching an upper limit. This theory indicated that as the level of motivation starts to level off, performance will increase minimally. The third theory showed the relationship between motivation and performance as an inverted U-function. In this theory, even as motivation increased, eventually performance started to decrease. Vroom stated that because motivation is difficult to measure with precision, discovering the exact nature of the relationship was impossible. Ideally, research and experiments could manipulate motivation only on an

ordinal scale. One would know which motivation was higher, but not by what degree. This would leave the possibility open to determine changes in direction of the relationship. Research evidence supported each of these relationship theories. The theories that focused on a decline or decrease in performance have two explanations offered. The first explanation explained that as motivation increased the cognitive field of the individual begins to narrow. This idea suggested that an individual would begin to overlook applicable information in this situation. The second explanation was that as motivation increased, anxiety to perform increased which has detrimental effects on performance.

Expectations and Aspirations

A two part study was conducted to determine if expectations and task difficulty affect task performance and to determine if expectations have a linear relationship with performance of difficult tasks (Marshall & Brown, 2004). This study built upon findings that performance and expectations are related (Shell, Murphy, & Bruning, 1989; Pajares & Miller, 1994), but Marshall and Brown sought to answer corollary questions about whether performance is aided by high expectations, hampered by low expectations, or both occur. Performance expectations are constitutively defined as expectations one has before an achievement related task. The first part of this study was a correlational design. Participants were given sample problems and then asked to indicate how many questions they would answer correctly on a ten question exam. Participants were then randomly selected and placed into an easy task group and difficult task group. Expectancies were found to have no impact on the easy task group. The results of the

difficult task group indicated that expectations did have an effect on the scores of the participants. The second part of this study provided students with a ten question pretest, and then administered the target test as in the first section. The results again determined that expectations had no effect on the easy task group, but expectations did have an effect on the difficult task group. The researchers concluded expectations are affected by the difficulty of the task due to the vigor and persistence employed by the task participant. Also, low expectations were detrimental to performance of difficult tasks while high expectations are beneficial.

Siry (1990) conducted a study using college students to measure the level of aspiration of high and low achievers on a problem-solving task. The procedures were designed to provide the students with a first set of five problems (Problem Set A), feedback on Problem Set A, a chance to predict their performance on Problem Set B, and finally, the participants completed Problem Set B. The hypothesis stated students who performed well on Problem Set A would predict higher estimates of their performance on Problem Set B. Students who answered three or more questions correctly on Problem Set A were placed into the high achievement group, while the remainder of the students was placed into the low achievement group. The results indicate that the hypothesis was confirmed. In addition, low achievement students achieved higher scores on Problem Set B compared to Problem Set A, while high achievement students produced lower scores. This trial was intentionally designed not to produce greater proficiency by the participants as the task progressed which negated the chance of proficiency to have an

effect. Participants who scored higher on the first task were found to statistically significantly predict a higher outcome than those who had a lower score on the first task.

The relationship between aspirations and expectations has been studied from other perspectives aside from achievement. Bogie (1976) underwent a research project to determine any discrepancies between occupational aspirations and expectations. Aspirations in this context were constitutionally defined as an ideal occupation if one was free to choose; whereas, expectations can be regarded as the occupations one thinks he or she will actually reach. Discrepancies were considered any difference between aspired and expected occupation. Data from 1,835 high school seniors were collected in the spring of their graduation year by a questionnaire. For analytical simplification, the answers were categorized into three groups: professional, intermediate, and low status occupations. The results show almost 40% of the students who listed professional aspirations had lower actual expectations. Differences in discrepancies per gender were also noted with fewer discrepancies in the males (35.7%) than in females (44.7%).

Davey (1993) conducted a study by giving a questionnaire to a random sample of 365 senior high school students. The purpose of the study was to explore any relationship between occupational aspirations and expectations. From the sample, 93.4% were able to list a desired occupation, but of those only 54% believed confidently that they would achieve this goal. While asking about the occupational expectation of the students, the students listed the same aspired and expected occupation only 28.8%, while 32.7 percent displayed a high relationship, and 38.5 percent produced a moderate or low consistency between aspired and expected occupation. The most common

reported obstacles to the desired occupations of the students were listed as: cost of education, job availability, distance of education or job, discouragement from others, job insecurity, and unacceptable grades.

CHAPTER III

METHODOLOGY

To further understand how the expectations and aspirations of participants of the National FFA Agricultural Mechanics Career Development Event relate to performance, the following research design was used.

Research Design

The research was ex post facto because the design occurs after the independent variables have occurred and been measured. A disadvantage attributed to ex post facto research lies in the fact that causal relationships cannot be proven without experimentation. A correlational design is useful when the goal is to explore causal relationships or for prediction from one variable to another. The study was a correlational design which sought to explain and explore the relationship between the variables. Correlational research has the primary advantage over other designs because of the number of variables that can be measured. A correlational design has an additional advantage of granting the degree of the relationship between variables.

Population and Sample

The population for this study consisted of all National FFA Agricultural Mechanics contestants. The contest has been conducted every year since 1972. Data collected with the instrument in this study began in 1978. The sample was a slice in time sample due to the availability of the data. The years of the data that were used for this study were the years ranging from 2001 through 2006.

Instrumentation

The instrument was designed before the 1978 National FFA Agricultural Mechanics Contest (G. C. Shinn, personal communication, September 27, 2006, December 9, 2006). The instrument was a questionnaire that begins by asking personal information including: name, address, telephone number, and social security number. There were 20 total questions. Three of those questions were short answer while the remaining questions were objective answer. Questions asked the participants their grade level, agricultural and contest experience, and hours spent practicing during and outside of class time, and together as a team. The participants were then asked their opinion on the relevance of the contest with respect to their past coursework and their overall satisfaction with the contest. The participants were also asked questions concerning both educational and career aspirations, and contest expectations. To determine contest expectations, the participants were asked to give an estimate of their expected outcome both as an individual and as a team, and their finish within their own team. The questionnaire instrument was honed over the years. Two questions were added on the later questionnaires that asked how many math and science courses the students had taken. These questions were not used in the analysis because they were not present for all years. The open ended questions sought to determine beneficial and detrimental aspects of the contest for improvement purposes. A copy of the instrument for each year has been included in Appendix A.

Data Collection

The questionnaires were administered to and collected annually from each contestant during the National FFA Agricultural Mechanics Career Development Event by contest officials since 1978. The scores were obtained in spreadsheet hardcopy format. All data were entered into Microsoft Excel, and then, transferred to SPSS for analysis.

Data Analysis

Using SPSS 15, descriptive statistics were used to analyze the data including means, standard deviations, kurtosis, skewness, percentages, and frequencies. Cronbach's alpha was used to determine if both dependent variables, individual contest performance and total contest performance, were a reliable construct. Cronbach's alpha was also utilized to determine if the three questions used to determine the number of hours spent preparing measured were a single reliable construct. Categorical independent variables were analyzed with independent samples *t*-tests to determine if any differences between the two means existed. Categorical independent variables which had more than two levels were analyzed using One-way Analysis of Variance (ANOVA) to determine if any differences existed between the means of the categories. Pearson Product Moment Correlations were used to test for any relationships between the interval level variables. The relationship strengths were judged by standards laid out by Davis (1971). This study followed that standard to analyze the strengths of the relationships. The questionnaire asked the participants to indicate the place they expected to finish as an individual and as a team. The dependent variables, individual

performance and total performance, were scores where the highest score indicated the best performance. To ensure continuity for a correlation analysis, the two independent variables which measured expected individual finish and expected team finish were reverse coded. These variables were then used in a multiple regression model to see which if any were significant predictors of individual or total contest performance.

CHAPTER IV

RESULTS

Purpose

The purpose of this study was to examine the variables that account for and predict contest performance, including: the current educational level of the participant, the time spent preparing, the number of adults who assisted preparation, previous contest experience, prior agricultural science education, perceived relatedness of the contest to their prior agricultural science coursework, when a goal was set to compete in the national contest, and aspired career choice and educational desires. Also, more specifically, this study attempted to determine how the aspirations and expectations of the contestants translated into contest performance by taking into account how the contestants felt they would finish within their own team, finish as a team, and finish as an individual.

Objectives

The objectives used to accomplish the purpose of this study were as follows:

1. Describe the participants in the National FFA Career Development Event.
2. Determine how the expectations for achievement translated into contest performance.
3. Determine how aspirations for future career and education influenced contest performance.

4. Determine if prior contest experience, goals, and preparation had an influence on contest performance.
5. Determine if interests or coursework experience had an influence on contest performance.
6. Determine if any of the variables served as a significant predictors of contest performance.

Results

Descriptive Statistics of the Questionnaire

The group measured for this study consisted of all contestants in the National FFA Agricultural Mechanics Career Development Event for years 2001 through 2006 (*n*=976). For each individual year, there were 150 respondents in 2001, 168 respondents in 2002, 161 respondents in 2003, 157 respondents in 2004, 169 respondents in 2005, and 171 respondents in 2006.

The sample was made up of 4.1% 10th grade students (*n*=40), 18.4% 11th grade students (*n*=180), 39.1% 12th grade students (n=382), 6.9% 1st year technical students (*n*=67), 22.5% 1st year college or university students (*n*=220), 8.6% completed school (*n*=84), and 0.3% non-respondents (*n*=3). These data were recoded into two groups for analysis. The groups consisted of those who were still enrolled in high school, 61.7% (*n*=602), and those who were no longer in high school, 38.0% (*n*=371).

The contestants reported their aspired career choice categorically. The largest reported career choice category was 30.2% agricultural mechanics (*n*=295), 10.0%

reported agricultural production (*n*=98), 8.8% reported construction (*n*=86), 6.3% reported agribusiness (*n*=61), 4.8% reported business (*n*=47), 3.9% reported medical or law (*n*=38), 3.2% reported a military career (*n*=31), 2.8% reported forestry (*n*=27), 1.8% reported transportation (*n*=18), 1.0% reported horticulture (*n*=10), and .05% no response (*n*=5). For this analysis, this variable was recoded into agricultural mechanics careers, other agriculturally related careers, and other non-agriculturally related careers. There was 30.2% of the sample who reported the wish to pursue a career in agricultural mechanics (*n*=295), 40.4% reported an aspiration to pursue a job in the agricultural industry but not in agricultural mechanics (*n*=394), and 28.9% reported that they will not pursue an agriculturally related career (*n*=282).

The contestants were also asked to provide the highest grade level that they expected to complete. Most contestants, 31.7%, expected to finish a Bachelor degree (*n*=309), while 0.6% expected to only finish the 11th grade (*n*=6), 9.5% planned to finish high school (*n*=93), 1.7% planned to seek some schooling after the 12th but below technical school or college level (*n*=26), 24.8% planned to attend a technical school or junior college (*n*=242), 17.8% planned to earn a Master degree (*n*=174), 7.1% planned to earn their Doctorate (*n*=69), 3.1% answered other (*n*=30), and 2.8% was no response (*n*=27). For the purposes of this study and constructing a factorial arrangement the data were analyzed with different groupings. After regrouping, 13.6% of the respondents expected to only finish high school (*n*=125), 26.3% expected attend a junior college or technical school (*n*=242), 33.6% expected to earn a baccalaureate degree (*n*=309), and 26.4% expected to earn some form of graduate degree (*n*=243).

To gauge previous contest experience, the contestants were asked how many contests they had competed in prior to the national contest at the local, district, regional, and state level. The largest reported group of prior contest experience was 1 to 3 contests with 55.7% (*n*=544), 20.5% reported 4 to 6 contests (*n*=200), 9.6% reported 7 to 9 contests (*n*=94), 5.3% reported 10 to 12 contests (*n*=52), 1.6% reported 13 to 15 contests (*n*=16), 5.7% reported more than 15 (*n*=56), and 1.4% was no response (*n*=14).

The contestants were asked to provide the grade level when they set a goal to compete at the national level in agricultural mechanics. A small percentage, 6.3% set the goal in eighth grade or before (*n*=61), 35.7% set the goal in the ninth grade (*n*=348), 21.3% set the goal in the tenth grade (*n*=208), 16.1% set the goal in the eleventh grade (*n*=157), 9.4% set the goal in the twelfth grade (*n*=92), and 11.3% was no response (*n*=110).

The contestants were also asked to report their previous coursework in agricultural science. The results were reported as each unit being two semesters of agricultural science education. Only 2.6% reported no previous coursework in agricultural science (*n*=25), and 24.9% reported one year of agricultural science (*n*= 243). Two years of agricultural science courses were reported by 10.8% (*n*=105), and 15.2% reported three years (*n*=148). The largest group, 26.5%, reported four years of agricultural science (*n*=259), and 9.5% reported the equivalent of five years (*n*=93). The equivalent of six years was reported by 6.1% (*n*=60), and 4.4% reported seven years of agricultural science education (*n*=43). The average number of years the students had taken was 3.13 with a standard deviation of 1.80.

To measure how related the contest is to previous high school agricultural instruction, the contestants answered if the contest was directly related, indirectly related, related a little, or not related. The most popular answer was that the contest was directly related, 45.5% (*n*=444), 22.0% listed indirectly related (*n*=215), 29.4% listed little relationship (*n*=287), 2.2% listed no relationship (*n*=21), and 0.9% were no response (*n*=9).

The questionnaire measured the how difficult the contestants perceived the contest. The most popular answer with 82.4% of the response said the difficulty of the contest was about right (*n*=804), 14.8% said the contest was too difficult (*n*=144), only 1.6% said the contest was too simple (*n*=16), and 1.2% was no response (*n*=12).

The contestants were asked if they had it all over to do over, would they enroll in agricultural science courses. A very large majority, 92.8%, said they would enroll again (*n*=906), 6.3% stated that they might would or they were not sure (*n*=61), only 0.8% of the contestants said they would not again enroll in agriculture (*n*=8), and there was one no response. For the purposes of this analysis, the group who answered they were not sure was combined with the group who answered that they would not enroll in agriculture again. A total of 92.9% stated that they would enroll in agriculture courses again (*n*=906), and 7.1% were not sure or would not enroll in agriculture courses again (*n*=69).

A similar item on the questionnaire measured if they had it to do over, whether they would try to qualify for the national agricultural mechanics team. The group largely said they would try to qualify again, 88.8% (*n*=867), 7.4% said they might or

were not sure if they would attempt to qualify again for the national team (*n*=72), 1.5% said they would not attempt to qualify again (*n*=15), and there was 2.3% no response (*n*=22). For the purposes of this study, those who answered that they were not sure or that they would not attempt to qualify for a national agricultural mechanics team were recoded together. Students who would attempt to qualify again accounted for 88.8% of the sample (*n*=867), and those who might or would not attempt to qualify again accounted for 8.9% of the sample (*n*=87).

Aspiration for contest finish was measured by asking the contestants three questions. The first question asked what position they estimate the finish of their own team from the entire field of teams. The mean response was 15th place out of about 44 teams participating annually with a standard deviation of 11.15 (*n*=956). The median was 12.00, and there was 20 no responses. These responses were skewed positively with a skewness value of .80, and these responses were leptokurtotic with a value of .08. The average number of teams per year is 44.0 with a standard deviation of 1.90 (*n*=264 teams). The second question asked each contestant where they thought they would place when compared to the rest of the individual contestants. The average response to this question was 55th place out of about 163 invididuals with a standard deviation of 44.34. The median for this measure was 50.00, and there was 26 no responses. These responses were also skewed positively with a value of .81, and it was also leptokurtotic with a value of .08. There was an average of 162.83 contestants in each competition with a standard deviation of 8.16. The third question asked them to rank their expected performance as it related to their teammates. Most contestants, 43.1%, thought they

would finish second on their team than any other category (*n*=421), while 27.1% thought they would finish first (*n*=265), 24.7 thought they would finish third (*n*=241), 3.9% admitted they thought they would finish last on their team (*n*=38), and 1.1% was no response (*n*=11).

The contests were asked a series of three questions to quantify how much time was spent preparing for the national contest after the team had qualified. The students were asked to report the amount of time in hours that were spent preparing during class, outside of class time, or together as a team. To see if these three items were an internally consistent scale to measure contest preparation, a Cronbach's alpha reliability analysis was executed. There were 920 valid responses and the alpha produced is .795. Since this alpha value indicates a good internal consistency, these three items were summed to become the variable contest preparation. The mean for this new variable was 62.56, and the standard deviation was 61.74. This variable had a positive skew, 1.21, and was slightly leptokurtotic, .49.

Over the years the contest has to change due to different themes and ever changing technology. Table 1 describes the means, standard deviations, and number of participants for each year. The table is broken into the individual scores and the total contest scores. A Cronbach's alpha was performed to measure the reliability of all 10 separate activities becoming the variable Individual Agricultural Mechanics Contest Performance. The alpha score was .760 with 10 items in the scale. Since the individual scores such "Score 1" was not uniform throughout the sample slice years, a more meaningful method to calculate the reliability of this variable is to split the data by year

in order to measure uniform scores. Year 2001 had a Cronbach's alpha of .798, year 2002 showed .780, year 2003 showed .815, year 2004 showed .822, year 2005 showed .779, and year 2006 showed .828. Each of these alphas showed a higher reliability when the score items are measured by year. These 10 scores were added together to make the dependent variable individual agricultural mechanics performance. The overall mean for this scale was 142.46 with a standard deviation of 33.13 (n=976). Overall, the data for individual score were skewed to the left (-.146) and platykurtotic (-249).

Table 1

Means, Standard Deviations, and Frequencies of Individual Scores and Overall Scores by Year

	Individual Scores			Total Scores		
Year	Mean	*SD*	*N*	Mean	*SD*	*N*
2001	133.51	28.62	150	168.96	38.13	150
2002	151.74	31.36	168	210.73	39.85	168
2003	155.33	30.93	161	209.11	38.08	161
2004	145.47	32.10	157	203.96	41.28	157
2005	141.42	34.71	169	186.70	40.42	169
2006	127.36	32.01	171	178.83	42.22	171
Total	142.46	33.14	976	193.20	42.95	976

Another dependent variable was made by adding the team activity score to the individual score. Each team had a project that was scored. This score was divided by three and added to total individual score on the first 10 items regardless of the number of participants on each team. The Cronbach's alpha for these 11 items was .716. Like the variable above, a more meaningful approach was to split the data by year due to uniformity of the scores. In 2001, the Cronbach's alpha was .773, 2002 had an alpha value of .728, 2003 had an alpha value of .758, 2004 had an alpha value of .786, 2005 had an alpha value of .737, and finally, 2006 had an alpha value of .740. The new variable named total agricultural mechanics performance is composed of the 10 individual activity scores and one third of the team activity score. The mean for this new scale was 193.20 with a standard deviation of 42.95 (n=976). The overall total score data were slightly skewed to the left (-.332), and the data were platykurtotic (-.170).

One-Way ANOVA: Year

To determine if year of the contest accounts for any of the variance in individual contest performance a one-way ANOVA was conducted. The null hypothesis held that there was no difference in individual performance and total performance based on contest year. The descriptive data can be found in Table 1. The ANOVA for the dependent variable, individual performance, fulfilled the assumption of equal variances, p>.05. Individual performance was found to differ significantly based on contest year, $F(5,970)=18.619$, p<.001, ω=.29. The first part of the null hypothesis was rejected. A Scheffé post hoc exam showed that year 2001 differed significantly from years 2002 (p<.001) and 2003 (p<.001). Year 2002 differed significantly from year 2006 (p<.001).

Year 2003 differed significantly from years 2005 ($p<.05$) and 2006 ($p<.001$). Year 2004 differed significantly from year 2006 ($p<.001$). The final unique significant difference was year 2005 and 2006 ($p<.05$). Table 2 shows the results of the ANOVA.

Table 2

One-way ANOVA: The Influence of Year on Individual Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	93742.43	5	18748.49	18.62	<.001
Within Groups	976731.88	970	1006.94		
Error	1070474.31	975			

The exam to measure if total contest performance differed by contest year also met the assumption of equal variances, ($p>.05$). Total contest performance was found to differ significantly by year, $F(5,970)=30.05$, $p<.001$, $\omega=.36$. The second part of the null hypothesis was also rejected. A Scheffé post hoc exam showed that year 2001 differed significantly from years 2002 ($p<.001$), 2003 ($p<.001$), 2004 ($p<.001$), and 2005 ($p<.05$). Year 2002 significantly differed from years 2005 ($p<.001$) and 2006 (p<.001). Year 2003 differed significantly from years 2005 ($p<.001$) and 2006 ($p<.001$). Finally, year 2004 differed significantly from years 2005 ($p<.05$) and 2006 ($p<.001$). Table 3 shows the results of the ANOVA.

Table 3

One-way ANOVA: The Influence of Year on Total Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	241206.17	5	48241.23	30.05	<.001
Within Groups	1557117.13	970	1605.28		
Error	1798323.29	975			

Independent Samples T-Test: High School Status

An independent samples *t*-test was conducted to test the null hypothesis that both individual and total contest performance was equal regardless if the participant was a current high school student or no longer enrolled in high school. The mean individual score for those in high school was 137.08 with a standard deviation of 33.47 (n=602), and the mean individual score for those not enrolled in high school was 151.18 with a standard deviation of 30.75 (n=371). Equal variances were assumed based on the Levene's test, p>.05. Individual contest performance was found to significantly differ based on whether the participant was currently enrolled in high school, $t(971)$=-6.58, p<.001, r=.25. The null hypothesis was rejected. Participants who were not currently enrolled scored an average of 14.11 points higher than those in high school at the time of the test.

A second independent samples *t*-test was conducted to determine if total contest performance was influenced by whether the contestant was in or out of school at the time of the contest. The mean total performance score for those in high school at the time of

the contest was 186.61 with a standard deviation of 44.04 (n=602), and the mean total performance for those not in high school was 204.12 with a standard deviation of 38.84 (n=371). The Levene's statistic was significant p<.05, so equal variances cannot be assumed. A significant difference was found on total performance based current school status, t(857.29)=-6.59, p<.001, r=.22. The null hypothesis was rejected. The participants who were out of high school scored an average of 17.51 points higher than those who were still in high school.

One-Way ANOVA: Aspired Career

A one-way ANOVA was used to test the null hypotheses that individual and total contest performance was not affected by aspired career choice. The descriptive statistics of individual contest performance showed that contestants who aspired to a career in agricultural mechanics scored an average of 139.06 points with a standard deviation of 33.39 (n=295). Contestants who wished to pursue an agriculturally related job other than agricultural mechanics scored 147.63 points with a standard deviation of 32.93 (n=395), and those who wish to pursue a career in something non-agriculturally related scored an average of 138.40 points with a standard deviation of 32.19 (n=282). The ANOVA to test whether individual performance was affected by aspired career choice does meet the assumption of equal variances, p>.05. A significant difference was found in individual contest performance based on aspired career choice, F(2,968)=8.61, p<.001, ω=.12. The null hypothesis was rejected. A priori contrasts showed that there is not a significant difference in individual performance between the group who would pursue a career in agricultural mechanics and all other groups, t(968)=-1.72, p>.05. A

significant difference with a contrast value of 9.90 and a standard error of 4.66 was found between those who would pursue a career in agriculture including agricultural mechanics and those who would not, $t(968)=2.12$, $p<.05$, $r=.07$. In addition, a Scheffé post hoc test identified that contestants who wished to pursue a career in other agriculture scored significantly 8.57 points higher than those who wished to pursue a career in agricultural mechanics ($p<.05$), and 9.24 points significantly higher than those whom would not pursue a career in agriculture ($p<.05$). Table 4 shows the results of this ANOVA.

Table 4

One-way ANOVA: The Influence of Aspired Career on Individual Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	18596.30	2	9298.15	8.61	<.001
Within Groups	1045155.64	968	1079.71		
Error	1063751.94	970			

The second one-way ANOVA tested the null hypothesis that total contest performance was equal based on aspired career choice. Contestants who aspired to an agricultural mechanics related job scored an average total score of 187.48 with a standard deviation of 43.03 ($n=295$). Contestants who aspired to an agriculturally related career that was not agricultural mechanics scored an average total score of 200.50 with a standard deviation of 42.24 ($n=394$), and those who aspired to a non-

agriculturally related career scored an average total score of 188.74 with a standard deviation of 42.59 (n=282). This test also met the assumption of equal variances, p>.05. A significant difference in total contest performance was found based on aspired career choice, $F(2,968)=10.00$, $p<.001$, $\omega=.13$. The null hypothesis was rejected. A priori contrasts showed a significant difference in total contest performance between those who wish to pursue a career in agricultural mechanics and all other groups. A contrast value of 14.29 and a standard error of 5.97 was found, $t(968)=-2.39$, $p<.05$, $r=.08$. The difference found between those who would pursue a career in any agricultural field versus those who would choose a field not related to agriculture was not significant, $t(969)=1.74$, $p>.05$. A Scheffé post hoc test showed that the group who wished to pursue a career in agriculture other than agricultural mechanics scored an average of 13.02 points significantly higher than those who wished to pursue a career in agricultural mechanics ($p<.001$), and this group scored 11.76 points significantly higher from those who would not pursue a career in agriculture ($p<.05$). Table 5 shows the results of this ANOVA.

Table 5

One-way ANOVA: The Influence of Aspired Career on Total Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	36249.44	2	18124.72	10.00	<.001
Within Groups	1755277.87	968	1813.30		
Error	1791527.31	970			

One-Way ANOVA: Educational Aspirations

A one-way ANOVA was carried out to test the null hypothesis that individual score was not influenced by aspired educational level. Students who planned to stop their education after high school scored 131.22 points with a standard deviation of 32.30 (n=125). Students who planned to attend a junior college or technical school scored an average of 140.97 points with a standard deviation of 32.18 (n=242). Students who planned to earn a baccalaureate degree scored an average of 148.78 points with a standard deviation of 31.57 (n=309), and those who planned to earn some form of graduate level degree scored an average of 144.99 points with a standard deviation of 34.55 (n=243). The test did not have a significant Levene's statistic $p>.05$; therefore, equal variances were assumed. Aspired educational level was found to significantly influence individual contest performance, $F(3,915)=9.24$, $p<.001$, $\omega=.16$. The null hypothesis was rejected. A priori contrasts showed a significant value, 41.09 with a standard error of 9.43, between those who would attend some form of higher education and those who would stop school after high school, $t(915)=4.36$, $p<.001$ $r=.14$. A second contrast also showed a significant contrast difference with a value of 21.58 with a standard error of 4.56 between those who would attend a four year school or higher and those who would not, $t(915)=4.74$, $p<.001$, $r=.15$. A Scheffé post hoc test showed that those who only would finish high school scored 17.56 points lower than those who would earn a baccalaureate degree ($p<.001$), and they scored 13.77 points lower than those who would earn some form of graduate degree ($p<.05$). Table 6 shows the results of this ANOVA.

Table 6

One-way ANOVA: The Influence of Aspired Educational Level on Individual Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	29537.47	3	9845.82	9.24	<.001
Within Groups	975001.23	915	1065.58		
Error	1004538.69	918			

A second one-way ANOVA was carried out to test the null hypothesis that total contest performance was not influenced by the aspired career choice of the participant. Participants who will choose to stop school after high school scored an average total performance of 177.23 points with a standard deviation of 42.28 (n=125). Those who will attend a junior college or technical score averaged a score of 189.69 in total performance with a standard deviation of 41.66 (n=242), and those who choose plan to pursue a baccalaureate degree scored an average of 200.83 points with a standard deviation of 39.90 (n=309). Finally, those who planned to earn some form of graduate degree scored an average of 199.29 points with a standard deviation of 44.17 (n=243). A non-significant Levene's statistic meant that equal variances were assumed for this exam (p>.05). Total contest performance was found to be influenced by the aspired educational level of the participant, $F(3,915)=11.58$, $p<.001$, $\omega=.18$. Table 7 shows the results of this ANOVA. An a priori contrast yielded a significant value of 58.12 with a standard error of 12.09 when comparing the those who will end schooling after high school and those who will pursue some form of further education, $t(915)=4.81$, $p<.001$,

r=.16. A significant value of a contrast, 33.20 with a standard error of 5.84, was yielded between the groups who would at least attend a four year school and those who would not, $t(915)=5.69$, $p<.001$, *r*=.18. A Scheffé post hoc test showed that those who would only finish high school scored an average of 23.60 points significantly lower than those who would pursue a baccalaureate degree ($p<.001$), and 22.06 points lower than those who would pursue some graduate level degree ($p<.05$). The remaining significant difference showed that those who will pursue a technical or junior college score an average of 11.14 points lower than those who will pursue a baccalaureate degree ($p<.05$).

Table 7

One-way ANOVA: The Influence of Aspired Educational Level on Total Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	60799.18	3	20266.39	11.58	<.001
Within Groups	1601387.11	915	1750.15		
Error	1662186.30	918			

One-Way ANOVA: Expected Finish Within the Team

The contestants were asked where they felt they would finish within their team of four in order to gauge their contest performance expectations. A one-way ANOVA was used to test the null hypothesis that expected finish within their team did not influence their individual performance. The descriptive data showed that those who thought they

would finish first on their team scored an average of 156.79 points with a standard deviation of 32.95 (n=256). Those who expected to finish second scored an average of 142.15 points with a standard deviation of 32.05 (n=421), and those who expected to finish third or last scored an average of 129.88 points with a standard deviation of 29.54 (n=279). The expected finish within the team did significantly influence individual contest performance, $F(2,262)=49.36$, $p<.001$, $\omega=.30$. Table 8 shows the results of this ANOVA. An a priori contrast yielded a value of 41.55 and a standard error of 4.59 in individual contest performance between those who would finish first and all others, $t(962)=9.06$, $p<.001$, $r=.28$. A second contrast yielded a value of 39.18 and a standard error of 4.52 between those who thought they would finish in the top half of their team and those who thought they would not, $t(962)=8.66$, $p<.001$, $r=.27$. A Scheffé post hoc test showed that all groups significantly differ from each other, $p<.001$. Participants who expected to finish first scored an average of 14.64 points higher than those who thought they would finish second and 26.91 points higher than those who expected to finish third or fourth. Participants who expected to finish second scored an average of 12.27 points higher than those who expected to finish third or fourth.

Table 8

One-way ANOVA: The Influence of Expected Place in Team on Individual Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	98577.08	2	49288.54	49.36	<.001
Within Groups	960638.99	962	998.59		
Error	1059216.08	964			

A second one-way ANOVA was conducted to test the null hypothesis that the second dependent variable, total performance, did not differ based on expected team finish. Participants who expected to finish first within their team scored an average of 207.68 points with a standard deviation of 42.91 (n=265). Those who expected to finish second scored an average of 192.04 points with a standard deviation of 42.42 (n=421), and those who expected to finish third or fourth scored an average of 182.12 points with a standard deviation of 39.50 (n=279). This test did meet the requirements for the assumption of equal variances, $p>.05$. Expected team finish did significantly influence total performance, $F(2,962)=25.93$, $p<.001$, $\omega=.22$. An a priori contrast generated a value of 41.20 and a standard error of 5.97 between those who thought they would finish first in their team against all other groups, $t(962)=6.80$, $p<.001$, $r=.21$. A second contrast produced a value of 35.48 and a standard error of 6.06 between those who thought they would finish first or second on their teams and all other groups, $t(962)=5.94$, $p<.001$, $r=.19$. A Scheffé post hoc test showed again that all groups differ significantly from one another. Contestants who expected to finish first scored an average of 15.64 points higher than those who expected to finish second ($p<.001$) and 25.56 points higher than those who expected to finish third or fourth ($p<.001$). Those contestants who expected to finish second scored an average of 9.92 points higher than those who expected to finish third or fourth ($p<.05$). Table 9 shows the results of this ANOVA.

Table 9

One-way ANOVA: The Influence of Expected Place in Team on Total Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	90314.57	2	45157.28	25.93	<.001
Within Groups	1675633.51	962	1741.82		
Error	1765948.08	964			

One-Way ANOVA: Goal for Agricultural Mechanics

A one-way ANOVA was conducted to examine the relationship between individual performance score and when the participants set a goal to compete in agricultural mechanics. Participants who set the goal in the eighth grade of before scored an average of 137.93 points with a standard deviation of 35.19 (n=61), those who set the goal in the ninth grade scored an average of 142.05 points with a standard deviation of 33.78 (n=348), those who set the goal in the tenth grade scored an average of 142.19 points with a standard deviation of 33.91 (n=208), those who set the goal in the eleventh grade scored an average of 145.93 with a standard deviation of 33.14 (n=157), and those who set the goal in the twelfth grade scored an average of 146.52 points with a standard deviation of 28.64 (n=92). The null hypothesis affirmed that there was no difference in individual contest performance based on when the participant set a goal to compete in the national agricultural mechanics contest. This test met the requirement that equal variances are assumed, p>.05. When the participant set a goal to compete in the national agricultural mechanics contest did not significantly influence

individual performance, $F(4,861)=1.02$, $p>.05$. The null hypothesis was not rejected. A Pearson Product Moment Correlation showed a non-significant relationship between individual performance and when the participant set a goal to compete, $r=.06$, $p>.05$. Table 10 shows the results for this ANOVA.

Table 10

One-way ANOVA: The Influence of Setting a Goal on Individual Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	4506.86	4	1126.71	1.02	0.398
Within Groups	954219.75	861	1108.27		
Error	958726.61	865			

A second one-way ANOVA was conducted to test the null hypothesis that when the contestant set a goal to compete in the national agricultural mechanics contest did not affect total contest performance. Participants who set the goal in the eighth grade or before scored an average of 187.77 points with a standard deviation of 43.98 ($n=61$), those who set the goal in the ninth grade scored an average of 192.66 points with a standard deviation of 45.47 ($n=348$), those who set the goal in the tenth grade scored an average of 195.40 with a standard deviation of 42.01 ($n=208$), those who set the goal in the eleventh grade scored an average of 195.76 points with a standard deviation of 41.94 ($n=157$), and those who did not set the goal until the twelfth grade scored an average of 198.17 with a standard deviation of 34.12 ($n=92$). This test also met the requirements

for equal variances, $p>.05$. The year that the contestant set a goal to compete in the national agricultural mechanics contest did not significantly influence total contest performance, $F(4,861)=0.75$, $p>.05$. The null hypothesis was not rejected. A Pearson Product Moment Correlation showed a non-significant association between total performance and when the participant set a goal to compete in the national contests, $r=.06$, $p>.05$. Table 11 shows the results for this ANOVA.

Table 11

One-way ANOVA: The Influence of Setting a Goal on Total Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	5471.29	4	1367.82	0.75	0.561
Within Groups	1579065.02	861	1833.99		
Error	1584536.31	865			

Independent Samples T-Test: Would You Enroll in Agriculture Again?

An independent samples *t*-test was conducted to test the null hypothesis that individual performance scores were not influenced by whether the participant would enroll in agricultural science courses again or not. The group who would enroll in agriculture courses again scored an average of 143.26 points with a standard deviation of 32.86 ($n=906$), and those who were not sure or would not enroll in agriculture courses again scored an average of 131.86 points with a standard deviation of 35.32 ($n=69$). The test had a non-significant statistic for the test of equality of variances, $p>.05$. The

difference in individual performance was found to be statistically significantly influenced by whether the participant would enroll in agriculture courses again or not, $t(973)=2.77$, $p<.05$, $r=.09$. The null hypothesis was rejected.

An independent samples *t*-test was conducted to determine if total contest performance was influenced by whether the participant would enroll in agriculture courses again. The null hypothesis affirms that whether the student will in enroll in agriculture again did not significantly influence total contest performance. Students who would enroll in agricultural science courses again if they had it to do all over scored an average of 193.86 points with a standard deviation of 42.62 ($n=906$), and those who were not sure or would not enroll again scored an average of 184.19 points with a standard deviation of 46.64 ($n=69$). This test meets the requirements of the assumption of equal variances, $p>.05$. Whether or not the student would enroll in agricultural science courses again did not significantly influence total contest performance, $t(973)=1.80$, $p>.05$. The null hypothesis was not rejected.

Independent Samples T-Test: Would You Qualify in Agricultural Mechanics Again?

The participants were also asked if they had it to do again if they would attempt to qualify for a national agricultural mechanics team. The null hypothesis states that individual performance scores were not be significantly influenced by whether the contestant would or would not attempt to qualify for a national agricultural mechanics team if they had it to do over. An independent samples *t*-test was used to test this hypothesis. Students who would have made the attempt scored an average of 143.79 points with a standard deviation of 32.45 ($n=867$), and those who were not sure or would

not attempt it again scored an average of 132.93 points with a standard deviation of 37.74 (n=87). This test did not have a significant statistic for the equality of variances test, p>.05; therefore, equal variances were assumed. The difference in individual contest performance based on whether the participant would attempt to qualify for a national agricultural mechanics team again or not was found to be statistically significant, $t(952)=2.93$, $p<.05$, $r=.09$. The null hypothesis was rejected.

A second independent samples t-test was used to examine the null hypothesis that total contest performance was not influenced significantly by whether the participant would attempt to qualify for another national agricultural mechanics team or not if they had it to do over again. Participants who would attempt to qualify again scored an average total performance of 195.09 with a standard deviation of 41.57 (n=867), and those who might or would not qualify again scored an average of 179.44 with a standard deviation of 50.36 (n=87). The Levene's test for equality of variances was significant so equal variances were not assumed, $p<.05$. A significant difference in total contest performance was found based on whether the contestant would attempt to qualify for a national agricultural mechanics team again or not, $t(98.11)=2.81$, $p<.05$, $r=.27$. This null hypothesis was rejected.

One-Way ANOVA: Number of Contests

The contestants indicated the number of contests they had participated in before the national contest. Table 12 shows the descriptive data for this test. A one-way ANOVA was used to test the null hypothesis that individual performance was not influenced by the number of contests the contestant has participated in before the

national contest. The number of contests was found to significantly influence individual contest performance, $F(5,956)=12.05$, $p<.001$, $\omega=.23$. The null hypothesis was rejected. A Scheffé post hoc test showed three significant differences. Those who only competed in 1-3 contests before nationals scored 11.47 points lower than those who competed in 4-6 ($p<.05$), 19.00 points lower than those who competed in 7-9 contests ($p<.05$), and 23.59 points lower than those who competed in 15 or more contests ($p<.001$). Since the independent variable was ordinal, a Pearson Product Moment Correlation was used to examine the relationship between the number of contests and individual performance. A significant relationship was found, $r=.21$, $p<.001$. Table 13 shows the results from this ANOVA.

Table 12

Means, Standard Deviations, and Numbers of Contests with Individual and Total Performance

	Individual Performance			Total Performance		
Contests	Mean	*SD*	*N*	Mean	*SD*	*N*
1-3	136.19	33.08	544	185.10	44.46	544
4-6	147.68	32.40	200	200.74	38.68	200
7-9	155.19	32.30	94	209.00	39.78	94
10-12	150.79	28.44	52	202.37	35.99	52
13-15	144.88	39.81	16	193.98	42.68	16
15+	159.79	22.01	56	218.68	25.87	56
Total	142.74	33.12	962	193.72	42.79	962

Table 13

One-way ANOVA: The Influence of Number of Contests on Individual Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	62492.60	5	12498.52	12.05	<.001
Within Groups	991690.97	956	1037.33		
Error	1054183.57	961			

A second one-way ANOVA was used to test the null hypothesis that the second dependent variable, total contest performance, was not influenced by the number of contests the contestant has participated in before the national contest. Table 12 shows the descriptive data for this contest. The number of contests was found to significantly influence total contest performance, $F(5,956)=12.88$, $p<.001$, $\omega=.24$. The null hypothesis was rejected. A Scheffé post hoc test also showed three significant differences. The group who had competed in 1-3 contests before nationals scored an average of 15.64 points lower than those who had competed in 4-6 ($p<.05$), 23.90 points lower than those who had competed in 7-9 ($p<.001$), and 33.59 points lower than those who had competed in 15 or more contests ($p<.001$). Again, a significant Pearson Product Moment Correlation showed a positive correlation with total contest performance, $r=.22$, $p<.001$. Table 14 shows the results from this ANOVA.

Table 14

One-way ANOVA: The Influence of Number of Contests on Total Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	111041.44	5	22208.29	12.88	<.001
Within Groups	1648292.08	956	1724.15		
Error	1759333.52	961			

One-Way ANOVA: Agricultural Science Courses

The participants were asked to report how many agriculture courses they had taken prior to the national contest. The null hypothesis for this test stated that there is no difference in individual performance based on the number of agriculture courses the participants have had. The descriptive data for this test can be found in Table 15. The test for homogeneity of variances was not significant so equal variances were assumed, $p>.05$.

The number of agriculture classes the participants had taken before the national contest was found to significantly influence individual contest performance, $F(7,968)=9.50$, $p<.001$, $\omega=.24$. A Scheffé post hoc test showed that participants who had two semesters of agriculture courses scored 13.92 points lower than those who had eight semesters of agricultural science ($p<.05$), and 22.02 points lower than those who had 14 or more semesters of agriculture courses ($p<.05$). Those who had four semesters of agricultural science scored 22.54 points lower than those who had eight semesters ($p<.001$), 20.10 points lower than those who had ten semesters ($p<.05$), 25.64 points

lower than those who had 12 semesters ($p<.05$), and 30.63 points lower than those who had 14 semesters ($p<.001$). A Pearson Product Moment Correlation showed that $r=.20$, $p<.001$. Table 16 shows the results of this ANOVA.

Table 15

Means, Standard Deviations, and N of Agriculture Courses with Individual and Total Performance

	Individual Performance			Total Performance		
Courses	Mean	*SD*	*N*	Mean	*SD*	*N*
0	147.56	38.86	25	197.21	52.11	25
2	135.54	32.07	243	183.94	42.52	243
4	126.92	31.86	105	174.83	42.55	105
6	140.40	33.03	148	190.80	44.12	148
8	149.46	30.72	259	202.19	39.88	259
10	147.02	34.49	93	197.67	42.17	93
12	152.57	28.66	60	206.35	31.76	60
14	157.56	34.17	43	214.23	43.15	43
Total	142.46	33.13	976	193.20	42.95	976

A one-way ANOVA was also used to test the second null hypothesis that the number of agriculture courses taken before the national contest did not influence total contest performance. The descriptive data for this test can be found in Table 15. The number of agriculture courses the participants had taken before the national contest did significantly influence total contest performance, $F(7,968)=8.98$, $p<.001$, $\omega=.23$. A

Scheffé post hoc test uncovered six significant differences. Participants who had taken 2 semesters of agricultural course scored an average of 18.25 points lower than those who had taken 8 semesters ($p<.05$), and 30.30 points lower than those who had taken 14 semesters of agricultural courses ($p<.05$). Those who had taken 4 semesters of agricultural science scored 27.35 points lower than those who had taken 8 semesters ($p<.001$), 22.84 points lower than those who had taken 10 semesters ($p<.05$), 31.52 points lower than those who had taken 12 semesters ($p<.05$), and 39.40 points lower than those who had taken 14 semesters of agricultural science ($p<.001$). A Pearson Product Moment Correlation showed an $r=.20$, $p<.001$. Table 17 shows the results of this ANOVA.

Table 16

One-way ANOVA: The Influence of Agriculture Courses on Individual Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	68833.11	7	9833.30	9.50	<.001
Within Groups	1001641.20	968	1034.75		
Error	1070474.31	975			

Table 17

One-way ANOVA: The Influence of Agriculture Courses on Total Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	109705.54	7	15672.22	8.98	<.001
Within Groups	1688617.75	968	1744.44		
Error	1798323.29	975			

One-Way ANOVA: Contest Relatedness

Participants were asked how related they thought the contest was compared to previous coursework. A one-way ANOVA was conducted to test the null hypothesis that individual scores were equal on how related the contestant perceived the contest to previous coursework. Participants who answered that the contest was directly related to their previous coursework scored an average of 146.50 with a standard deviation of 31.82 (n=444). Those who answered that the contest was indirectly related to previous coursework had an average score of 147.57 with a standard deviation of 32.99 (n=215), and those who answered that the contest held little or no relation to previous coursework scored an average 133.32 points with a standard deviation of 33.03 (n=308). Equal variances were assumed, p>.05. Individual performance was found to differ significantly based on the degree of perceived relatedness of the contest and coursework, $F(2,964)=18.29$, p<.001, ω=.19. The null hypothesis was rejected. A Scheffé post hoc exam showed the two groups who answered that the contest was directly and indirectly related significantly differed from the group who answered that the contest held little or

no relationship to their previous coursework (p<.001). Contestants who perceived the contest as directly related to previous coursework scored an average of 13.18 higher than those who thought the contest had little or no relationship to coursework, and participants who answered that the contest was indirectly related to previous coursework scored an average of 14.25 points higher than those who answered that the contest had little or no relationship to previous coursework. Table 18 shows the results of this ANOVA.

Table 18

One-way ANOVA: The Influence of Contest Relatedness on Individual Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	38572.57	2	19286.28	18.29	<.001
Within Groups	1016523.52	964	1054.48		
Error	1055096.08	966			

A second one-way ANOVA was conducted to determine whether total contest performance varied depending on the degree of perceived relatedness between the contest and previous coursework. The respondents who answered that the contest was directly related to previous coursework scored an average of 197.07 points in total performance with a standard deviation of 40.30 (n=444). Participants who answered that the contest was indirectly related scored an average of 200.24 total performance points with a standard deviation of 42.45 (n=215), and those who answered that the contest had

little or no relationship to previous coursework scored an average of 183.20 points with a standard deviation of 44.59 (n=308). The null hypothesis stated that there will be no difference in total contest performance based on perceived contest relatedness to previous coursework. Equal variances were assumed, p>.05. A significant difference was found in contest performance based on perceived contest relatedness, $F(2,964)=13.51$, $p<.001$, $\omega=.16$. The null hypothesis was rejected. A Scheffé post hoc exam showed that the two groups who thought that the contest was directly and indirectly related to previous coursework significantly differed from the group who thought the contest had little or no relationship to their previous coursework (p<.001). Contestants who answered that the relationship was direct scored an average of 13.87 points higher than those who answered little or no relationship. Contestants who answered that the contest was indirectly related scored 17.03 points higher than those who answered little no relationship. Table 19 shows the results of this ANOVA.

Table 19

One-way ANOVA: The Influence of Contest Relatedness on Total Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	48062.13	2	24031.06	13.50	<.001
Within Groups	1715422.29	964	1779.48		
Error	1763484.42	966			

One-Way ANOVA: Contest Difficulty

Participants were asked how they perceived the difficulty of the contest. A one-way ANOVA was used to test the null hypothesis that there was not a difference in individual contest performance influenced by the perceived difficulty. Participants who answered that the contest was too simple scored an average of 158.13 points with a standard deviation of 31.08 (n=16), those who answered that the difficulty of the contest was about right scored an average of 145.09 points with a standard deviation of 32.79 (n=804), and those who answered that the contest was too difficult scored an average of 126.53 points with a standard deviation of 30.47 (n=144). The Levene's statistic for this exam was not significant; therefore, equal variances were assumed, p>.05. A significant difference in individual contest performance was found based on how the participants perceived the difficulty of the contest, $F(2,961)=21.87$, p<.001, ω=.20. The null hypothesis was rejected. A Scheffé post hoc exam shows that contestants who perceived the contest as too simple significantly scored 31.59 points higher than those who thought the contest was too difficult, p<.05. Those who thought the contest was about right in difficulty scored significantly 18.56 points higher than those who thought the contest was too difficult, p<.001. Table 20 shows the results for this ANOVA.

Table 20

One-way ANOVA: The Influence of Contest Difficulty on Individual Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	46008.41	2	23004.20	21.87	<.001
Within Groups	1010655.11	961	1051.67		
Error	1056663.52	963			

A second null hypothesis was tested using a one-way ANOVA. This null hypothesis stated that total contest performance was not influenced by the perceived difficulty of the contest by the contestants. The descriptive data showed that those who thought the contest was too simple scored an average of 206.50 points with a standard deviation 43.83 (n=16), those who thought the contest difficulty was about right scored an average of 197.00 points with a standard deviation of 41.91 (n=804), and those who thought the contest was too difficult scored an average of 172.29 points with a standard deviation of 41.42 (n=144). This test also met the assumption of equal variances, p>.05. The amount of difficulty of the contest that the participants perceived did significantly influence total contest performance, $F(2,961)=22.07$, p<.001, ω=.20. The null hypothesis was rejected. A Scheffé post hoc exam highlights two significant differences between the groups. Those who thought the contest difficulty was too simple scored an average of 34.21 points higher than those who thought the contest was too difficult, p<.05. Also, those who thought the contest difficulty was about right scored an average of 24.71 points, p<.001. Table 21 shows the results for this ANOVA.

Table 21

One-way ANOVA: The Influence of Contest Difficulty on Total Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	77344.53	2	38672.26	22.06	<.001
Within Groups	1684319.00	961	1752.67		
Error	1761663.53	963			

One-Way ANOVA: Help from Adults Other than the Agriculture Teacher

Contestants were asked to answer how many adults other than their agricultural science teacher helped them prepare for the contest. Table 22 shows the descriptive data for this ANOVA. A one-way ANOVA was used to test the null hypothesis which states that individual contest performance was not influenced by the number of adults who assisted in contest preparation. Equal variances were assumed, $p>.05$. The number of adults who helped was found to not significantly influence individual contest performance, $F(9,942)=.93$, $p>.05$. The null hypothesis was not rejected. A Pearson Product Moment Correlation also found a non-significant relationship with individual contest performance, $r=.06$, $p>.05$. Table 23 shows the results of the ANOVA.

Table 22

Means, Standard Deviations, and Numbers of Adults with Individual and Total Performance

	Individual Performance			Total Performance		
Adults	Mean	*SD*	*N*	Mean	*SD*	*N*
0	142.03	31.99	261	192.34	41.57	261
1	141.93	34.55	213	193.50	45.58	213
2	141.51	32.86	187	190.45	41.27	187
3	140.10	33.54	124	191.14	43.47	124
4	148.71	34.35	59	203.77	41.07	59
5	149.39	30.79	46	207.10	38.33	46
6	154.05	29.09	19	204.49	36.89	19
7	148.86	29.24	7	196.33	29.18	7
8	148.30	47.41	10	203.90	59.58	10
10	147.73	30.52	26	195.86	41.63	26
Total	142.94	33.11	952	193.98	42.64	952

A second one-way ANOVA tested a second null hypothesis which stated that the second dependent variable, total performance, was not influenced by the number of adults who assisted in contest preparation. Table 22 shows the descriptive data for this exam. Equal variances were also assumed for this test, $p>.05$. The number of adults who assisted in preparing the contestants for the contest did not significantly influence total contest performance, $F(9,942)=1.28$, $p>.05$. The null hypothesis was not rejected. A non-significant association was displayed between the number adults that assisted

preparation and total contest performance, r=.06, p>.05. Table 24 shows the results of this ANOVA.

Table 23

One-way ANOVA: The Influence of Adults Assisting on Individual Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	9163.69	9	1018.19	0.93	0.500
Within Groups	1033390.96	942	1097.02		
Error	1042554.66	951			

Two-Way ANOVA: Year and Expected Finish

The null hypothesis states there was no difference on individual performance because of contest year, their expected finish within team, or any interaction effect of the two variables. The data from expected finish within their team were recoded so that there was a value for expected 1st place within the team, 2nd place within the team, and 3rd or 4th place within the team. The questionnaires from the majority of the years did not allow for the 4th place choice, and this recoding allowed for a more uniform factorial ANOVA. A two-way independent ANOVA was performed to test this null hypothesis. Table 25 shows the cell means, standard deviations, and numbers of the independent variables for this analysis.

Table 24

One-way ANOVA: The Influence of Adults Assisting on Total Contest Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Between Groups	20867.28	9	2318.59	1.28	0.244
Within Groups	1707814.92	942	1812.97		
Error	1728682.20	951			

The Levene's test did not show a significant result so equal variances can be assumed, $p>.05$. Individual score was found to significantly differ by contest year, $F(5,965)=16.94$, $p<.001$, $\omega=.07$. A Scheffé post hoc exam showed that year 2001 was statistically different from years 2002 and 2003 ($p<.001$). Year 2002 was found to also be significantly different from year 2006 ($p<.001$). Year 2003 also has a statistical difference from years 2005 ($p<.05$) and 2006 ($p<.001$). Year 2004 only had a statistical difference from year 2006 ($p<.001$). The only remaining statistical difference found was between 2005 and 2006 ($p<.05$).

A statistically significant difference in individual score was found to be influenced by expected finish within the team, $F(2,965)=50.24$, $p<.001$, $\omega=.07$. A Scheffé post hoc test showed that all groups were statistically different from each other. Contestants who thought they would finish first on their team scored an average 14.64 points higher than those who thought they would finish second ($p<.001$) and 26.91 points higher than those who thought they would finish in the bottom half of their team ($p<.001$). Contestants who thought they would finish second scored an average of 12.27

Table 25

Means, SD, and N for Year and Expected Place Within Team

		Individual Performance			Total Performance		
Year	Expected Team Place	Mean	*SD*	*N*	Mean	*SD*	*N*
2001	1	176.64	38.32	44	176.64	38.32	44
	2	167.81	38.16	60	167.81	38.16	60
	3	164.49	36.68	42	164.49	36.68	42
	Total	169.52	37.84	146	169.52	37.84	146
2002	1	225.52	34.33	53	225.52	34.33	53
	2	213.39	37.82	66	213.39	37.82	66
	3	192.01	40.84	48	192.01	40.84	48
	Total	211.09	39.69	167	211.09	39.69	167
2003	1	223.18	41.08	39	223.18	41.08	39
	2	213.35	34.45	74	213.35	34.45	74
	3	191.20	35.24	46	191.20	35.24	46
	Total	209.35	38.19	159	209.35	38.19	159
2004	1	215.43	40.60	45	215.43	40.60	45
	2	200.98	44.23	73	200.98	44.23	73
	3	196.29	33.84	39	196.29	33.84	39
	Total	203.96	39.95	168	203.96	41.28	157
2005	1	205.80	38.98	45	205.80	38.98	45
	2	181.39	36.89	81	181.39	36.89	81
	3	178.60	41.11	42	178.60	41.11	42
	Total	187.23	39.95	168	187.23	39.95	168
2006	1	196.18	46.33	39	196.18	46.33	39
	2	172.30	39.01	67	172.30	39.01	67
	3	173.15	39.79	62	173.15	39.79	62
	Total	178.16	42.04	168	178.16	42.04	168

points higher than those who thought they would finish in the bottom half of their team (p<.001). This ANOVA also showed a statistically significant difference in individual performance based on the interaction of year and expected finish within the team, $F(10,965)=2.16$, $p<.05$, $\omega=.03$. Table 26 shows the results of this two-way ANOVA with individual performance.

Table 26

Two- way ANOVA: Year, Expected Finish in Team, and Interaction on Individual Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Year	76315.05	5	15263.01	16.94	<.001
Expected Finish Within Team	90541.05	2	45270.53	50.24	<.001
Interaction	19502.84	10	1950.28	2.16	.018
Error	853332.97	947	901.09		

The second part of this analysis was to test the null hypothesis that there was no difference in total performance influenced by contest year, the expected place of the individual within the team, or any interaction effect of the two. Again, a two-way independent ANOVA was used to test this null hypothesis. The means, standard deviations, and numbers of each category in this analysis are found in Table 25.

A statistically significant difference in total performance was found based on contest year, $F(5,965)=28.057$, $p<.001$, $\omega=.09$. The Scheffé post hoc exam showed that year 2001 significantly differed from years 2002 through 2004 (p<.001) and year 2005

(p<.05). Year 2002 and year 2003 were found to significantly differ from years 2005 (p<.001) and 2006 (p<.001). The last statistically unique difference was found between year 2004 (p<.001) and 2006 (p<.001). The results of this ANOVA are detailed in Table 27.

Table 27

Two-way ANOVA: Year, Expected Finish in Team, and Interaction on Total Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Year	210957.29	5	42191.46	28.06	<.001
Expected Finish Within Team	82516.02	2	41258.01	27.44	<.001
Interaction	19377.54	10	1937.75	1.29	.232
Error	1424071.43	947	1503.77		

A statistically significant difference in total performance was found based on how well the contestant thought they would place within their team, $F(2,965)=27.44$, p<.001, ω=.05. The Scheffé post hoc exam showed significantly that the contestants who thought they would finish first on their team differed in total performance by an average of 15.64 points from those who thought they would finish second (p<.001) and 25.56 points from those who thought they would finish third or fourth (p<.001). Contestants who thought they would finish second had a statistically significant difference in total performance by 9.92 points from contestants who answered third or fourth (p<.05). The interaction effect of year and expected finish within the team did not

show a significant on total agricultural mechanics performance, $F(10,965)=1.29$, $p>.05$, $\omega=.01$.

Two-Way ANOVA: High School Status and Desired Education

The second null hypothesis said that individual performance and total performance were not influenced by whether the contestant was in or out of high school at the time of the contest, their desired educational level, or an interaction effect of the two variables. Analysis for this hypothesis was completed using a two-way independent ANOVA. To achieve a factorial arrangement of the variables, desired educational level had to be recoded as mentioned in the prior descriptive evaluation. The variable was now coded one for high school, two for technical school/junior college, three for baccalaureate degree, and four for beyond baccalaureate. The individual performance means, standard deviations, and numbers for the cross tabulation of high school status and expected educational level are in Table 28.

The two-way independent ANOVA met the assumption of equal variances, $p>.05$. Results for this ANOVA can be found in Table 29. Individual performance scores did differ statistically based on the aspired educational level of the contestant, $F(3,916)=5.65$, $p<.05$, $\omega=.04$. A Scheffé post hoc test showed that students who only aspired to finish high school statistically scored 10.20 points less than those who planned to complete a junior college or technical school ($p<.05$), 17.91 points less than those planned to complete a baccalaureate degree ($p<.001$), and 14.11 points less than those who planned to complete some form of graduate degree ($p<.05$). Contestants who aspired to attend a technical or junior college averaged scoring 7.71 points lower than

those who aspired to earn a baccalaureate degree ($p<.05$). No other groups differed significantly with each other.

Table 28

Means, SD, and N of the Factorial Relationship Between High School Status and Aspired Education

		Individual Performance			Total Performance		
High School Status	Aspired Education	Mean	*SD*	*N*	Mean	*SD*	*N*
In High School	High School	123.34	30.62	87	170.09	43.47	87
	Tech/Jr. College	137.05	32.64	152	184.38	42.18	152
	Baccalaureate	142.23	31.04	175	192.15	40.05	175
	Graduate or Above	141.35	36.15	157	195.44	45.49	157
	Total	137.73	33.42	571	187.62	43.42	571
Out of High School	High School	148.59	29.08	37	193.59	35.18	37
	Tech/Jr. College	147.97	30.41	89	199.38	39.02	89
	Baccalaureate	157.42	30.39	133	212.47	36.86	133
	Graduate of Above	151.63	30.52	86	206.31	40.82	86
	Total	152.59	30.43	345	205.53	38.68	345
Total	High School	130.88	32.21	124	177.10	42.43	124
	Tech/Jr. College	141.08	32.20	241	189.92	41.59	241
	Baccalaureate	148.79	31.62	308	200.92	39.94	308
	Graduate or Above	144.99	34.55	243	199.29	44.12	243
	Total	143.33	33.11	916	194.37	42.57	916

Table 29

Two-way ANOVA: School Status, Aspired Education, and Interaction on Individual Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Educational Status	43380.70	1	43380.70	42.54	<.001
Aspired Education	17298.68	3	5766.227	5.65	.001
Interaction Effect	4694.00	3	1564.67	1.53	.204
Error	925955.31	908	1019.775		

The individual performance score was influenced significantly by whether the student was still in high school or had already graduated, $F(1,916)=42.54$, $p<.001$, $\omega=.08$. Students who were finished with high school had an average score 14.11 points higher than students who were in high school at the time of the contest. The ANOVA did not show a statistically significant effect on individual performance based on the interaction between school status and aspired educational level, $F(3,916)=1.53$, $p>.05$, $\omega=.01$.

A two-way independent ANOVA was also conducted to test whether total contest performance was influenced by whether the contestant was in or out of high school at the time of the contest or by the aspired educational level of the contestant. This test also met the assumption of equal variances, $p>.05$. Total performance was statistically significantly influenced by whether the contestant was in or out of high school at the time of the contest, $F(1,916)=32.85$, $p<.001$, $\omega=.07$. Contestants who were

out of high school scored an average of 17.51 points higher in total performance compared to contestants still in high school.

This ANOVA also tested to see if total performance was influenced by aspired educational level. The means, standard deviations, and numbers of each category for this analysis can be found in Table 28. The null hypothesis asserted that there is no difference in total performance based on aspired educational level. Again, a statistically significant difference was found in total performance because of aspired educational level, $F(3, 916)=8.20$, $p<.001$, $\omega=.05$. The null hypothesis was rejected. A Scheffé post hoc exam showed that students who aspired to cease formal education after high school statistically differed an average of 12.82 points lower from those who aspired to complete a technical or junior college ($p<.05$), 23.82 points lower from those who aspired to complete a baccalaureate degree ($p<.001$), and 22.19 points lower from those who aspired to some form of graduate degree ($p<.001$). Contestants who aspired to complete a technical or junior college statistically significantly scored an average of 11.00 points lower than those who aspired to a baccalaureate degree ($p<.05$), but were not significantly different from those who aspired to a graduate level degree ($p>.05$). The interaction effect on total performance by school status and aspired educational level was not statistically significant, $F(3,916)=.84$, $p>.05$. The result of this two-way independent ANOVA is exhibited in Table 30.

Table 30

Two-way ANOVA: School Status, Aspired Education, and Interaction on Total Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Educational Status	55451.27	1	55451.27	32.85	<.001
Aspired Education	41534.42	3	13844.81	8.20	<.001
Interaction Effect	4239.94	3	1413.31	0.84	.473
Error	1532562.92	908	1687.84		

Two-Way ANOVA: Aspired Job and Contest Relatedness

A factorial arrangement of the independent variables aspired job and the perceived contest relatedness to previous coursework of the contest was found. Aspired job was recoded into agricultural mechanics jobs, other agricultural jobs not including agricultural mechanics, and non-agricultural jobs as mentioned previously. The null hypothesis for this analysis stated that there will be no difference in individual performance based on future job aspiration, how the contestant perceived the relatedness of the contest compared to previous coursework, or the interaction of the two independent variables. The descriptive data for this test are found in Table 31.

Table 31

Means, SD, and N of the Factorial Arrangement of Aspired Job and Contest Relatedness

		Individual Performance			Total Performance		
Job	Relatedness	Mean	*SD*	*N*	Mean	*SD*	*N*
Ag. Mech	Direct	139.76	30.52	136	187.80	38.94	136
	Indirect	149.13	33.72	60	203.49	39.63	60
	Little or No	132.40	35.70	97	178.36	47.29	97
	Total	139.25	33.39	293	187.89	42.82	293
Other Ag.	Direct	152.11	32.46	188	205.10	40.15	188
	Indirect	153.82	33.00	83	206.30	43.76	83
	Little or No	136.01	30.68	120	188.77	42.48	120
	Total	147.53	32.88	391	200.35	42.26	391
Non-Ag.	Direct	144.98	30.79	119	194.67	39.83	119
	Indirect	137.88	30.56	68	189.95	42.37	68
	Little or No	130.75	33.18	91	181.02	44.04	91
	Total	138.59	32.02	278	189.05	42.14	278
Total	Direct	146.41	31.80	443	196.99	40.30	443
	Indirect	147.35	33.00	211	200.23	42.59	211
	Little or No	133.32	33.03	308	183.20	44.59	308
	Total	142.42	33.03	962	193.29	42.76	962

The difference in individual performance based on the expected job choice of the contestant was significant, $F(2,962)=7.18$, $p<.05$, $\omega=.04$. This null hypothesis was

rejected. A Scheffé post hoc exam showed that those who aspired to a career in agricultural mechanics scored an average of 8.29 points lower than those who aspired to an agricultural career not related to agricultural mechanics, $p<.05$. Those who aspired to an agricultural career that did not include agricultural mechanics scored an average of 8.94 points higher than those who aspired to a career not related to agricultural mechanics, $p<.05$. The perceived relatedness of the contest to the previous coursework did influence a significant difference in individual performance, $F(2,962)=16.87$, $p<.001$, $\omega=.06$. The null hypothesis was rejected. A Scheffé post hoc exam showed that those who thought the contest was directly related to previous coursework scored an average of 13.09 points higher than those who thought there was little or no relation, $p<.001$. A second significant difference was found and showed that those who thought the contest was indirectly related to previous coursework scored an average of 14.03 points higher than those who thought there was little or no relation, $p<.001$. There was no significant difference found in individual performance based on the interaction of the variables expected job and contest relatedness, $F(4,962)=1.81$, $p>.05$, $\omega=.02$. This null hypothesis was not rejected. Table 32 displays the detailed results of this two-way ANOVA.

Table 32

Two-way ANOVA: Aspired Job, Contest Relatedness, and Interaction on Individual Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Expected Job	14876.59	2	7438.30	7.18	.001
Contest Relatedness	34946.99	2	17473.50	16.87	<.001
Interaction Effect	7483.36	4	1870.84	1.81	.125
Error	987046.37	953	1035.73		

The null hypothesis stated that there is no difference in total performance based on expected job choice, how the contestant perceives the relatedness of the contest to previous coursework, or an interaction of the two independent variables. This test met the assumption of equal variances, $p>.05$. The two-way independent ANOVA yielded the significant result of expected job having an effect on total performance; therefore, the null hypothesis was rejected, $F(2,962)=7.136$, $p<.05$, $\omega=.04$. A Scheffé post hoc exam highlighted two significant differences between groups. Those who aspired to an agricultural job scored an average of 12.46 points higher than those who aspired to an agricultural mechanics job ($p<.05$), and 11.30 points higher than those aspired to a career not related to agriculture ($p<.05$). A statistically significant difference was found between total performance based on how well the contestants perceived the relatedness of the contest to previous coursework, $F(2,962)=12.94$, $p<.001$, $\omega=.05$. A Scheffé post hoc exam showed two significant differences between groups. Those who thought the contest was directly related to previous coursework scored an average of 13.78 points

higher than those who thought the contest had little or no relationsip, $p<.001$. Those who thought the contest was indirectly related to previous coursework scored an average of 17.03 points higher than those who thought the contest had little or no relationship to previous coursework, $p<.001$. There was no significant difference found in total performance based on an interaction effect of expected job and contest relatedness, $F(4,962)=1.47$, $p>.05$, $\omega=..01$. This null hypothesis was not rejected. The results of this ANOVA can be found in Table 33.

Table 33

Two-way ANOVA: Aspired Job, Contest Relatedness, and Interaction on Total Performance

Source	Sums of Squares	*df*	Mean Squared	*F*	Sig.
Expected Job	24968.03	2	12484.02	7.14	.001
Contest Relatedness	45266.98	2	22633.49	12.94	<.001
Interaction Effect	10291.35	4	2572.84	1.47	.209
Error	1667325.69	953	1749.55		

Multiple Regressions

A multiple regression analysis was used to determine if the independent variables were a good predictor of individual and total contest performance. The analysis was a stepwise regression. The first stage consisted of the independent variables hours spent preparing, previous contest experience, and the number of adults besides the agriculture teacher who assisted in preparation. The second stage used aspired education as a

predictor variable. The final stage comprised the variables that asked the participants about their expected finish, both of their team against all others and their personal finish against all other contestants. Before the regression analysis was conducted, a Pearson Product Moment Correlation was used to find any significant relationships between the variables. Table 34 shows this correlational analysis.

Table 34

Pearson Product Moment Correlations

	IS	TS	TP	C	Ad	AEd	TF	IF
Individual Score (IS)	1.00							
Total Score (TS)	0.92**	1.00						
Time Prepared (TP)	0.09**	0.09**	1.00					
Contests (C)	0.21**	0.22**	0.12**	1.00				
Adults Helped (Ad)	0.06	0.06	0.28**	0.08*	1.00			
Aspired Education (AEd)	0.13**	0.17**	0.06	0.09**	-.04	1.00		
Exp. Team Finish (TF)	0.33**	0.35**	0.18**	0.18**	0.11**	0.08*	1.00	
Exp. Individual Finish (IF)	0.37**	0.35**	0.19**	0.15**	0.12**	0.08*	0.72*	1.00

Note . *p <.05; **p <.01

Individual performance score had a very strong positive association with total performance score, R=.92, p<.001. Individual score also had a moderate positive association with expected team finish (R=.33, p<.001) and expected individual finish (R=.37, p<.001). A low positive association existed between individual score and the

number of contests (R=.21, p<.001) and aspired education (R=.13, p<.001). Individual score had a negligible positive association with time spent preparing (R=.09, p<.05). Total contest score had a moderate positive association with expected team finish (R=.35, p<.001) and expected individual finish (R=.35, p<.001). Total contest score had a low positive association with the number of contests (R=.22, p<.001) and aspired education (R=.17, p<.001). A negligible positive association existed between total contest score and time spent preparing (R=.09, p<.05). Time spent preparing had a negligible positive association with the number of contests (R=.12, p<.001) and adults who assisted in preparation (R=.28, p<.001) and a low positive association with expected team finish (R=.18, p<.001) and expected individual finish (R=.19, p<.001). The number of contests had a negligible association with the number of adults who assisted (R=.08, p<.05) and aspired education (R=.09, p<.05) and a low positive association with expected team finish (R=.18, p<.001) and expected individual finish (R=.15, p<.001). The number of adults who assisted contest preparation had a low positive association with expected team finish (R=.11, p<.001) and expected individual finish (R=.12, p<.001). Aspired education had a negligible positive relationship with expected team finish (R=.08, p<.05) and expected individual finish (R=.08, p<.05). Finally, expected team finish had a very strong positive association with expected individual finish (R=.72, p<.001).

The first stage of the multiple regression was found to be a significant predictor of individual contest performance, $F(3,830)=11.30$, p<.001, R^2=.04. The second stage of this analysis was also found to significantly add to the independent variables as a

Table 35

Stepwise Multiple Regression for Individual Contest Performance

Step	*B*	*SE B*	β	Sig.
Step 1				
Constant	133.88	2.25		.000
Time Prepared	0.03	0.02	.06	.107
Contests	4.27	0.81	.18	<.001
Adults Helped	0.22	0.54	.02	.015
Step 2				
Constant	124.95	3.73		<.001
Time Prepared	0.03	0.02	.05	.158
Contests	4.09	0.81	.17	<.001
Adults Helped	0.33	0.54	.02	.535
Aspired Education	3.39	1.13	.10	.003
Step 3				
Constant	148.46	4.08		<.001
Time Prepared	.00	0.02	-.01	.833
Contests	2.88	0.76	.12	<.001
Adults Helped	.00	0.50	.00	.999
Aspired Education	2.62	1.06	.08	.013
Exp. Team Finish	-0.35	0.14	-.12	.011
Exp. Individual Finis	-0.21	0.03	-.28	<.001

Note . R^2=.04 for Step 1; ΔR^2=.01 for Step 2; ΔR^2=.13 for Step 3.

predictor for individual performance, $F(4,829)=10.80$, $p<.001$, $R^2=.05$. The final stage was also found to significantly add to the ability of the predictor variables to predict individual performance, $F(6,827)=29.91$, $p<.001$, $R^2=.18$. Table 35 shows the results from this multiple regression.

The first step of the second multiple regression to test whether the number of contests, hours spent preparing, or the number of adults who assisted with preparation was a significant predictor of total contest performance was significant, $F(3,830)=11.56$, $p<.001$, $R^2=.04$. The second step was also found to be a significant predictor of total contest performance, $F(4,829)=12.94$, $p<.001$, $R^2=.06$. The final step which included the first two steps plus the expected team and individual finish of the contestants was also found to be a significant predictor of total contest performance, $F(6,827)=30.52$, $p<.001$, $R^2=.18$. Table 36 shows the results of the second regression analysis.

Table 36

Stepwise Multiple Regression for Total Contest Performance

Step	*B*	*SE B*	β	Sig.
Step 1				
Constant	182.39	2.88		<.001
Time Prepared	0.03	0.02	.05	.160
Contests	5.60	1.03	.19	<.001
Adults Helped	0.33	0.69	.02	.630
Step 2				
Constant	167.02	4.74		<.001
Time Prepared	0.03	0.02	.04	.256
Contests	5.29	1.03	.18	<.001
Adults Helped	0.53	0.68	.03	.442
Aspired Education	5.83	1.44	.14	<.001
Step 3				
Constant	197.27	5.21		<.001
Time Prepared	-0.01	0.02	-.02	.659
Contests	3.65	0.97	.12	<.001
Adults Helped	0.12	0.64	.01	.852
Aspired Education	4.83	1.35	.12	<.001
Exp. Team Finish	-0.74	0.18	-.19	<.001
Exp. Individual Finis	-0.19	0.04	-.20	<.001

Note . R^2=.04 for Step 1; ΔR^2=.02 for Step 2; ΔR^2=.12 for Step 3.

CHAPTER V

SUMMARY OF STUDY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary of Study

The purpose of this study was to examine the variables which influence performance at the National FFA Agricultural Mechanics Career Development Event. Each of the participants was asked to state their expectations for performance in the contest by indicating how they thought they would finish overall as an individual and as a team and how they would finish against their teammates. These predictions will be used to examine the relationship between their expectations for performance and their actual performance. Participants at this level of contest have progressed through a series of contest levels to earn entrance into the national contest. All bring a wealth of prior contest experience, knowledge, and skills from hours of practice. With this experience, the participants were able to make a prediction about their performance in the contest.

An objective of this study was to examine the descriptive statistics about the participants of the study. Since each participant was asked about their expectations for performance, these data were examined to determine if expectations were a valid predictor of contest performance. Each participant was asked questions dealing with contest preparation and previous coursework which were also analyzed for influence on contest performance. Educational aspirations and career aspirations were analyzed to determine if these variables had influence on contest performance. Finally, this study

determined if perceptions about the contest and the contentment of the participants with FFA and agricultural mechanics influenced contest performance.

Motivational theory has long been studied and has been directed toward many model orientations. The theoretical framework for this study took into account the modern motivational theories dealing with performance, achievement, and reasons for motivation. Expectancy theories focus on expectancies for success, the efficacy of the participant, and the control the participants feel over their venture. Motivation can stem from intrinsic or extrinsic factors. Individuals who feel they are in control of the task and feel they are doing the task by choice or self-determination, tend to have greater motivation and achievement. Goal theories try to dissect meaning from why individuals set goals, and why they achieve or fail to achieve those goals. Theories also study motivation from the perspective of how the individual attributes successes or failures. An individual may attribute his or her successes or failures to actions they do or do not have control over, to characteristics interior or exterior to themselves, or to how stabile they view the attribution. Commonly accepted attributions are ability, effort, luck, and task difficulty. Expectancy-value theory adds the dimension of value to the list of theories. The extent an individual values the task or the rewards of the task are thought to have an influence on motivation.

This study was ex post facto and non-experimental. This study used data from 976 participants from the contests ranging from 2001 through 2006. Data for this study were collected from questionnaires administered after the National FFA Agricultural Mechanics Career Development Event. Contest scores were collected to measure

performance for each of the participants. The contest score consisted of 10 scores from various categories the individual must complete and one score from a team activity. These contest scores made up the dependent variables for this study. Data from the questionnaires made up the independent variables.

The instrument was made up for 20 items. There were two open ended questions whose purpose was to improve contest quality. These two questions were not be used in the analysis. Eleven of the questions were objective answer and yielded categorical data. There were three open answer questions to assess how many hours the participants spent preparing for the contest, and one question asked how many adults besides the agricultural science teacher assisted in team preparation. One question asked the participant to indicate at what grade level he or she set a goal to compete in the national agricultural mechanics competition. Two questions gave a range of the number of individuals or teams in the contest and asked the contestants to indicate where they expected to finish in each category.

As previously stated, the data were collected from the contestants after the contest. All data were entered into Microsoft Excel, and then, it was transferred to SPSS 15 for data analysis. Descriptive statistics were utilized to analyze means, standard deviations, frequencies, percentages, kurtosis, and skewness. Cronbach's alpha was used to test the dependent variables, individual performance score and team performance score, to see if the dependent variables measured the same construct. Cronbach's alpha was also used to compile the independent variable for hours spent preparing which was later called contest preparedness. Independent samples *t*-tests and one-way ANOVAs

were used to analyze for any differences in categorical means associated with influence on the dependent variables. Two-way factorial ANOVAs were used to test for interaction effects of two independent variables on the dependent variables. Pearson Product Moment Correlations were used to see if there was any relationship between the interval level variables. A multiple regression was employed to determine if any of the interval variables served as a significant predictor of individual or team contest performance.

Summary and Conclusions of Objectives

Summary and Conclusions for Objective One

The summary of data for objective one described the sample and contest. There were a total of 976 contestants who participated in the sample during years 2001 through 2006. The minimum number of contestants in a year was during the 2001 contest with 150 and the maximum number of contestants for a year in this study was 2006 with 171 respondents. The majority of participants, 61.7%, were still in high school at the time of the national contest. Agricultural mechanics related careers were aspired by 30.2% of the sample. Other agricultural job aspirations consisted of 40.4% of the sample, and 28.9% of the sample reported non-agricultural job aspirations. Most of the contestants, 86.4%, aspired to some form of education after high school. Of those who aspired to further education, 24.8% reported an aspiration to attend junior college or a technical school, and 56.6% reported a four year degree or higher.

The majority of the contestants, 55.7%, had competed in one to three contests prior to the national contest, and 20.5% reported a prior contest experience of four to six contests. Most students had set a goal to compete in the national contest while in high school with the most, 35.7%, having set the goal as freshmen and each following grade level reduced in percentage. Only one category of previous agricultural science courses reported was over a quarter of the sample. The students who reported the equivalent of four years of agricultural science accounted for 26.5% of the sample, and those who reported one year accounted for 24.9%. The contest was reported to be directly related to previous coursework by 45.5% of the sample, and 31.6% reported little or no relationship to previous coursework. An overwhelming majority of students thought the contest was about right in difficulty, 82.4%.

When the contestants were asked if they would enroll in agricultural science courses again if they had it to do over, a vast majority responded positively, 92.8%. A large majority, 88.8%, also responded positively when asked if they would attempt to qualify for a national agricultural mechanics team if they had it to do over. Contestants reported spending an average of 62.56 hours preparing for the contest either inside or outside of class time or as a team (*SD*=61.74).

The mean response of the contestants when asked what place they expected their team was 15th place out of about 44 teams annually (*SD*=11.15). The mean response when the participants were asked what place he or she expected to finish overall as an individual was 55th place out of about 163 annual participants (*SD*=44.34). These two questions made up two of the continuous variables used in the regression analysis to

predict contest performance. Contestants were also asked where in their team they expect to finish. Most contestants responded that they would finish second, 43.1%, 27.1% responded that they would finish first, and 24.7% thought they would finish third.

Summary and Conclusions for Objective Two

The second objective was to determine how expectations for achievement translated into actual contest performance. Three measures were taken to determine expectations. Participants were asked where they thought they would finish as an individual compared to the entire contest field. They were asked how they thought their team would finish compared to the rest of the field of teams. They were asked how they thought they would finish as a contestant on their own team. How the participants thought they would finish as an individual produced the best Pearson Product Moment Correlation with individual contest performance yielding a moderate negative association, r=-.38, p<.001. Expected team finish (r=-.33, p<.001) and expected finish within their own team (r=-.31, p<.001) also generated a moderate negative association with individual team performance. Expected individual finish (r=-.35, p<.001) and expected team finish (r=-.35, p<.001) produced Pearson Product Moment Correlations with total contest performance at the moderate negative association level. A low negative association existed between expected finish within their own team and total contest performance, r=-.22, p<.001.

These finding showed expectations for success did influence contest performance. The strongest relationship existed between expected individual performance and actual contest performance. For the variable expected team finish, the

participant had to take into account how well he or she thought their teammates would compete. This conclusion was supported by Wigfield and Eccles (2000). They proposed a theory which states choice, persistence, and performance can be explained by how well the subject believes he or she will perform. Marshall and Brown (2004) also demonstrated that high expectations have been shown to positively influence achievement and performance. They concluded high expectations increased the persistence and effort produced toward the task.

S*ummary and Conclusions for Objective Three*

The purpose of the third objective was to determine if aspirations for future career and education have an influence on contest performance. Individual performance was found to be significantly influenced by aspired educational level, $F(3,915)=9.24$, $p<.001$, $\omega=.16$. This null hypothesis was rejected. Those who would attend some form of schooling after college scored significantly higher than those who would not, $t(915)=4.36$, $p<.001$, $r=.14$. Those who would at least attend a four year school scored significantly higher than those who would stop education after high school or pursue a technical or junior college degree, $t(915)=4.74$, $p<.001$, $r=.15$. Total contest performance was also significantly influenced by aspired educational level, $F(3,915)=11.58$, $p<.001$, $\omega=.18$. Those who would pursue some form of education after high school scored significantly higher than those who would not, $t(915)=4.81$, $p<.001$, $r=.18$. Those who would attend at least a four year school scored significantly higher than those who aspired to junior college or technical school and those who would end school after high school, $t(915)=5.69$, $p<.001$, $r=.18$.

Aspired career choice was measured and was tested by ANOVA to determine if this variable had any influence on individual or total contest performance. The null hypothesis for career choice states individual and total contest performance would not be significantly influenced by the aspired career choice of the participant. Aspired career choice was found to have a statistically significant effect on individual contest performance, $F(2,968)=8.61$, $p<.001$, $\omega=.12$, and total contest performance, $F(2,968)=10.00$, $p<.001$, $\omega=.13$. Both parts of this null hypothesis were rejected. A significant difference in individual contest performance between groups was found by an a priori contrast which showed a participant with an agricultural career choice outperformed a participant with a nonagricultural career choice, $t(968)=2.12$, $p<.05$, $r=.07$. By examining the groups individually using a post hoc exam, a significant difference in individual contest performance was found between those who aspire to a career in agriculture but not agricultural mechanics and those who aspire to a nonagricultural career. Unlike the difference found in individual contest performance from the a priori contrast, the significant difference in total contest performance was found between those who wish to pursue a career in agricultural mechanics and those who would not, $t(968)=-2.39$, $p<.05$, $r=.08$. The post hoc exam for total contest performance showed differences between the groups who wished to pursue a career in agriculture excluding agricultural mechanics and both those who wished to pursue an agricultural mechanics career and those would not pursue an agricultural career.

Because of these findings, it was concluded contest participants score higher if they aspire to higher educational levels. Since both individual and total contest score

was higher for those who aspire to some form of agriculturally related career, it was concluded those with an interest great enough to warrant a career choice in agriculture perform will perform better than those who do not aspire to a career in agriculture.

Summary and Conclusions for Objective Four

The fourth objective was to determine if prior contest experience, goals, or preparation influenced contest performance. The experience the participants gained from partaking in contests before the national contest was found to significantly influence individual performance, $F(5,956)=12.05$, $p<.001$, $\omega=.23$ and total contest performance, $F(5,956)=12.88$, $p<.001$, $\omega=.24$. A low positive association existed between the independent variable and both dependent variables. The association between individual performance and the number of contests produced a correlation coefficient of $r=.21$, $p<.001$, and the association between total contest performance and the number of contests produced a correlation coefficient of $r=.22$, $p<.001$. As the participants competed in more contests, the score of the contestant increased.

Individual performance was influenced by how difficult the participants perceived the contest, $F(2,961)=21.87$, $p<.001$, $\omega=.20$. Those who thought the contest was too simple scored 31.59 points significantly higher in individual performance than those who thought the contest was too difficult. This finding was supported by finding a significant difference between total contest performance based on perceived contest difficulty, $F(2,961)=22.07$, $p<.001$, $\omega=.20$. Each participant was asked to rate how related he or she perceived the relatedness of the contest and previous coursework. Both individual ($F(2,964)=18.29$, $p<.001$, $\omega=.19$) and total performance ($F(2,964)=13.51$,

$p<.001$, $\omega=.16$) were significantly influenced by how related the participants perceived the contest to be to previous coursework.

A negligible positive association was found between the number of hours prepared and individual contest performance, $r=.09$, $p<.05$ and total contest performance, $r=.09$, $p<.05$. The number of adults other than the agricultural science teacher who assisted preparing the participants was not found to have a significant influence on individual, $F(9,942)=0.93$, $p>.05$ or total contest performance, $F(9,942)=1.28$, $p>.05$. The association between the independent variable and dependent variables was also non-significant. How early the participant set a goal to compete in the national contest was not found to be a significant influence on either individual, $F(4,861)=1.02$, $p>.05$ or total contest performance, $F(4,861)=0.75$, $p>.05$. A Pearson Product Moment Correlation did not produce a significant result for the association between goals and individual and team performance.

The findings indicated that as the amount of contests increased so does contest performance. Previous contest experience was a measure of preparation from actually performing the task. Previous contest experience differed from the hours spent preparing and the number of adults who assisted preparation because previous contest experience was experience from actually performing the task while the hours spent preparing and adults were practice at performing the task. The number of adults who assisted in contest preparation and the hours spent preparing were not a significant influence on contest performance. The findings also indicate that the easier the difficulty was perceived tended to increase performance; therefore, it was concluded that

as the contest was perceived as easier, contest scores increased. The relatedness of previous coursework was found to be a significant influence on contest performance. Because of this finding, it was concluded that the quality and specificity of was important to performance. When goals were set earlier more time is allowed for preparation, but the findings of this study show this was not the case. When participants set a goal was not a significant influence on contest performance.

Summary and Conclusions for Objective Five

The fifth objective was to determine if interests or previous coursework had an influence on contest performance. The variable for high school status measured whether the participant was still in high school or had already graduated high school at the time of the contest. Individual contest performance was significantly influenced by whether the participant was in school or not, $t(971)=-6.58$, $p<.001$, $r=.25$. Those who had previously graduated scored an average of 14.11 points higher in individual performance. Total contest performance was also significantly influenced by whether the participant was in high school or not, $t(857.29)=-6.59$, $p<.001$, $r=.22$. Those who had previously graduated scored an average of 17.51 points higher than those who have not. Both parts of this null hypothesis were rejected because in both of the cases, individual and total contest performance, participants who had already graduated scored higher.

A one-way Independent ANOVA was used to determine if individual performance differed based on the number of agricultural science courses the participant had taken prior to the national contest. The number of agricultural science courses the

student had taken was found to be a significant influence on individual, $F(7,968)=9.50$, $p<.001$, $\omega=.24$ and total contest performance, $F(7,968)=8.98$, $p<.001$, $\omega=.23$. This null hypothesis was rejected. A Pearson Product Moment Correlation showed a positive correlation for both individual ($r=.20$) and total contest performance ($r=.20$); therefore, as the participant took more classes, the better his or her individual performance and total performance became.

Participants were asked if they would enroll in an agricultural science program again if they had the choice to do it all over. This question served as a measure of how much of an interest the participants placed in agricultural science. The participants who displayed an interest and would enroll in agriculture again performed significantly better by scoring an average of 11.4 points higher in individual performance than those who would not enroll again, $t(973)=2.77$, $p<.05$, $r=.09$. The test for the influence of whether the student would enroll again or not was not a significant indicator or total performance, $t(973)=1.80$, $p>.05$.

Participants were also asked if they would attempt to qualify for a national agricultural mechanics team if they had the chance to do it over. This question measured the interest of the participant in agricultural mechanics. An independent samples *t*-test showed that whether a participant would attempt to qualify again or not did significantly influence individual contest performance, $t(952)=2.93$, $p<.05$, $r=.09$ and total contest performance, $t(98.11)$, $p<.05$, $r=.27$. Those who would qualify for a national agricultural mechanics team again scored an average of 10.86 points higher in individual

performance, and 15.65 points higher in total performance compared to those who would not attempt to qualify again.

The findings indicated that students out of high school scored higher than those still in high school. Those students who have already graduated have had the opportunity of more years of experience and instruction. This conclusion was supported by the finding that as the student takes more agricultural science courses the score of the participant increased. A sophomore or junior generally lack the opportunity to acquire the instruction of those students who are older. Not only was the number of courses a significant influence on performance, but how interested the student was in agricultural science itself. The findings showed the student who would enroll in agricultural courses again performed better than those who would not. This led to the conclusion that as the interest the student has in agriculture and the fulfillment the courses bring to the students was an influence on performance. This was also true specifically for agricultural mechanics. The students who indicated they would attempt to qualify for a national team again scored higher than those who would not.

Summary and Conclusions for Objective Six

The sixth objective was to determine if any of the interval variables served as a valid predictor for contest performance. A Pearson Product Moment Correlation showed the time spent preparing, the number of contests, aspired education, expected team finish, and expected individual finish were significantly associated to both individual and total contest performance. The number of adults who helped prepare the contestants other than the agricultural science teacher was not significant. The strongest association

was between expected team finish and expected individual finish with individual performance and total performance. The remaining relationships in order of strongest to weakest association were the number of contests, aspired education, and time spent preparing. The first step in the stepwise multiple regression for individual performance showed the number of contests and the number adults were significant predictors, and this step yielded an R^2 value of .04. The second step only showed the number of contests and aspired education as significant predictors, and this step provided a ΔR^2=.01. The final step showed the number of contests, aspired education, expected team finish, and expected individual finish as significant predictors with a ΔR^2=.13. The number of contests was the only significant predictor of total contest performance for the first step for the second multiple regression analysis which produced an R^2=.04. The second step showed the number of contests and aspired education as significantly valid predictors and this step produced a ΔR^2=.02. The final step showed the number of contests, aspired education, expected team finish, and expected individual finish as significant predictors. This final stage produced a ΔR^2=.12. The total R^2 value for the regression used to predict individual contest performance was R^2=.18. The total R^2 for the regression used to predict total contest performance was also R^2=.18.

Several variables served as significant predictors of contest performance. The findings indicated the best predictor for contest performance was expected individual and team performance. Because of this finding, it was concluded that expected performance does serve as a significant influence on performance. This conclusion was supported by previous research into the relationship between expectations and

performance (Wigfield & Eccles, 2000; Marshall & Brown, 2004; Shell, Murphy, & Bruning, 1989; Pajares & Miller, 1994).

Implications

The strongest predictor for performance found in this study was the expectations for performance reported by the participants. Bandura (1997) proposed a model of motivation called self-efficacy theory. This theory is centered on the idea that self-efficacy or the confidence in one's ability to accomplish a task has an influence on performance. This theory also stated that self-efficacy has an influence on goal setting, effort, and persistence. The findings and conclusions of this study supported the conclusions produced by Bandura.

Performance can also be influenced by future career or educational goals. Eccles and Wigfield (2002) described four elements to task-value. Participants who take on a task related to their career choice or educational goals are said to find utility value in the task. Those participants who have a genuine interest in the task gain intrinsic value from performance of the task. In expectancy-value motivational theory, expectations for success and the value the actor gains or loses from the task influence performance on the task. This study demonstrated that as the aspired career choice aligns with the contest, performance scores increased. This was also true for aspired education. As the level of aspired education increased, performance scores tended to increase.

A majority of the sample indicated a previous history of agricultural mechanics contests and agricultural science courses. Most of the sample would also enroll in

agriculture again and would attempt to qualify for a national agricultural mechanics team again. When engagement in a task stemmed from interest, individuals acted from intrinsic motivation (Eccles & Wigfield, 2002). Deci and Ryan (1985) proposed self-determination theory which held that intrinsic motivation was possible only when the individual engaged in the task feels competent and self-determined. Performance in this study was higher for those who had more experience from agriculture classes and agricultural mechanics contests. Also, those participants who displayed interest in agriculture courses and the agricultural mechanics CDE scored higher than those who indicated they would not enroll or qualify again. These conclusions supported self-determination theory supported these conclusions.

Recommendations

Based on the findings and conclusions of this study, recommendations will be made for two specific purposes. These purposes are (1) recommendations for practice and (2) recommendations for further research.

Recommendations for practice which have been developed are as follows:

1. The purpose of any CDE is to enhance student learning. Agricultural science has moved away from the vocational education methods of the past and more toward a multidisciplinary educational approach (Aldrich, 1988). This idea should be embraced so that all contest preparatory activities are directly tied back to classroom instruction and even more broadly, to other disciplines such as

mathematics and science. The goal should be a comprehensive educational program.

2. Participants who had taken more agricultural courses and had been in school longer performed better than less experienced participants. Contestants who had competed in more contests prior to the national contest and thought the contest was more related to previous coursework also scored higher than those who had not. Agricultural mechanics CDE participants should be recruited earlier to increase the amount of quality contest and practical experience.

Recommendations for further research which have been developed are presented and discussed as follows:

1. Aspirations and expectations are conceptually different ideas. Care should be taken to separate these concepts in future research to study specifically what influence expectations and aspirations have on performance as well as the relationship between aspirations and expectations.
2. The questionnaire for this study was administered after the contest. Responses of performance expectations occur after the participant had competed. Data for performance expectations should be collected before and after the contest to compile data that will take into account for subjective evaluations of performance by the participants. Performance expectations may differ before and after the contest because the participant has a subjective measurement of their performance after having competed.

3. Agricultural science education has moved away from vocational education to a program which takes a more multidisciplinary approach. Before the 2006 competition, the questionnaire instrument was amended to include questions about specific mathematics and science courses. Future research should be conducted to determine what influence not only agricultural education has on performance, but also how much influence math and science education has on contest performance.

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APPENDIX A

QUESTIONNAIRE INSTRUMENTS

2001 NATIONAL FFA AGRICULTURAL MECHANICS

CAREER DEVELOPMENT EVENT

STUDENT INFORMATION SHEET

NOTE:	ALL INFORMATION IS CONFIDENTIAL AND WILL NOT **BE** REPORTED AS INDIVIDUAL DATA.

NAME: _____ STATE: _____

HOME ADDRESS: _____ SS#: _____-_____-_____

_____

_____

HOME TELEPHONE: (_____) _____

1. CHECK THE GRADE IN WHICH YOU ARE CURRENTLY ENROLLED:

_____ 10TH
_____ 11TH
_____ 12TH
_____ 1ST YEAR TECH SCHOOL
_____ 1ST YEAR COLLEGE/UNIVERSITY
_____ COMPLETED SCHOOL

2. CHECK ALL OF THE AGRICULTURE CLASSES IN WHICH YOU HAVE BEEN ENROLLED:

_____ 1ST YEAR, AG EDUCATION/AG SCIENCE
_____ 2ND YEAR, AG EDUCATION/AG SCIENCE
_____ 3RD YEAR, AG EDUCATION/AG SCIENCE
_____ 4TH YEAR, AG EDUCATION/AG SCIENCE
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____

3. HOW DOES THE NATIONAL AG MECHANICS CDE RELATE TO YOUR PREVIOUS HIGH SCHOOL AGRICULTURE CLASS INSTRUCTION?

_____ DIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ INDIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ LITTLE RELATIONSHIP TO OUR CLASSES.
_____ NO RELATIONSHIP TO OUR CLASSES.

4. IF YOU HAD IT TO DO OVER, WOULD YOU ENROLL IN AGRICULTURE?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

5. CHECK **ONE** STATEMENT WHICH BEST DESCRIBES YOUR CAREER CHOICE:

_____ PRODUCTION	_____ BUSINESS
_____ AG MECHANICS	_____ CONSTRUCTION
_____ AGRIBUSINESS	_____ TRANSPORTATION
_____ FORESTRY	_____ MEDICAL/LAW
_____ HORTICULTURE	_____ MILITARY
_____ OTHER, _____	_____ OTHER, _____

6. HOW MANY AGRICULTURAL MECHANICS CDE'S HAVE YOU COMPETED AT LOCAL, DISTRICT, REGION, AND STATE LEVELS?

_____ 1-3	_____ 7- 9	_____ 13-15
_____ 4-6	_____ 10-12	_____ MORE THAN 15

7. WHAT IS YOUR BEST ESTIMATE OF YOUR **TEAM'S RANKING** IN THIS NATIONAL AGRICULTURAL MECHANICS CDE?

_____ OUT OF 43 TEAMS

8. WHAT IS YOUR BEST ESTIMATE OF YOUR **INDIVIDUAL RANKING** IN THE NATIONAL CDE TOMORROW?

_____ OUT OF 129 CONTESTANTS.

9. HOW DO YOU THINK YOU WILL DO WHEN COMPARED TO THE OTHER TWO MEMBERS OF YOUR TEAM?

_____ FIRST OF THE THREE
_____ SECOND OF THE THREE
_____ THIRD OF THE THREE

10. HOW DO YOU FEEL ABOUT THE DIFFICULTY OF THE NATIONAL AGRICULTURAL MECHANICS CDE?

_____ TOO SIMPLE
_____ ABOUT RIGHT
_____ TOO Dll'FICULT

11. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **DURING CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

12. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **OUTSIDE CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

13. ESTIMATE HOW MANY HOURS YOUR TEAM HAS WORKED **TOGETHER** TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

14. HOW MANY ADULTS (EXCLUDING YOUR TEACHERS) HELPED YOU PREPARE FOR THIS CDE AFTER YOU QUALIFIED FOR THE NATIONAL CDE?

_____ ADULTS DIRECTLY HELPED COACH OUR TEAM.

15. IN WHAT GRADE DID YOU FIRST SET A GOAL TO PARTICIPATE IN A NATIONAL FFA CDE?

---

16. WHAT WAS **MOST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

17. WHAT WAS **LEAST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

18. IF YOU HAD IT TO DO OVER, WOULD YOU TRY TO QUALIFY FOR THE NATIONAL AGRICULTURAL MECHANICS TEAM?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

19. WHAT IS THE HIGHEST GRADE LEVEL YOU EXPECT TO COMPLETE?

_____ 11TH
_____ 12TH
_____ 13TH
_____ 14TH
_____ OTHER _____

_____ JUNIOR COLLEGE OR TECH SCHOOL
_____ COLLEGE/UNIVERSITY - B.S.
_____ COLLEGE/UNIVERSITY - M.S.
_____ COLLEGE/UNIVERSITY - Ph.D.
_____ OTHER, _____

20. IF YOU WIN A BRIDGESTONE/FIRESTONE TRUST FUND SCHOLARSHIP FOR POSTSECONDARY SCHOOL EXPENSES (TECHNICAL OR COLLEGE), WILL YOU ACCEPT IT AND CONTINUE IN SCHOOL?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

21. ADDITIONAL COMMENTS? (PS: Thank you for providing this important information)

2002 NATIONAL FFA AGRICULTURAL MECHANICS

CAREER DEVELOPMENT EVENT

STUDENT INFORMATION SHEET

NOTE:	ALL INFORMATION IS CONFIDENTIAL AND WILL NOT **BE** REPORTED AS INDIVIDUAL DATA.

NAME: _____ STATE: _____

HOME ADDRESS: _____ SS#: _____-_____-_____

_____

_____

HOME TELEPHONE: (_____) _____

1. CHECK THE GRADE IN WHICH YOU ARE CURRENTLY ENROLLED:

_____ 10TH
_____ 11TH
_____ 12TH
_____ 1ST YEAR TECH SCHOOL
_____ 1ST YEAR COLLEGE/UNIVERSITY
_____ COMPLETED SCHOOL

2. CHECK ALL OF THE AGRICULTURE CLASSES IN WHICH YOU HAVE BEEN ENROLLED:

_____ 1ST YEAR, AG EDUCATION/AG SCIENCE
_____ 2ND YEAR, AG EDUCATION/AG SCIENCE
_____ 3RD YEAR, AG EDUCATION/AG SCIENCE
_____ 4TH YEAR, AG EDUCATION/AG SCIENCE
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____

3. HOW DOES THE NATIONAL AG MECHANICS CDE RELATE TO YOUR PREVIOUS HIGH SCHOOL AGRICULTURE CLASS INSTRUCTION?

_____ DIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ INDIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ LITTLE RELATIONSHIP TO OUR CLASSES.
_____ NO RELATIONSHIP TO OUR CLASSES.

4. IF YOU HAD IT TO DO OVER, WOULD YOU ENROLL IN AGRICULTURE?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

5. CHECK **ONE** STATEMENT WHICH BEST DESCRIBES YOUR CAREER CHOICE:

_____ PRODUCTION	_____ BUSINESS
_____ AG MECHANICS	_____ CONSTRUCTION
_____ AGRIBUSINESS	_____ TRANSPORTATION
_____ FORESTRY	_____ MEDICAL/LAW
_____ HORTICULTURE	_____ MILITARY
_____ OTHER, _____	_____ OTHER, _____

6. HOW MANY AGRICULTURAL MECHANICS CDE'S HAVE YOU COMPETED AT LOCAL, DISTRICT, REGION, AND STATE LEVELS?

_____ 1-3	_____ 7- 9	_____ 13-15
_____ 4-6	_____ 10-12	_____ MORE THAN 15

7. WHAT IS YOUR BEST ESTIMATE OF YOUR **TEAM'S RANKING** IN THIS NATIONAL AGRICULTURAL MECHANICS CDE?

_____ OUT OF 44 TEAMS

8. WHAT IS YOUR BEST ESTIMATE OF YOUR **INDIVIDUAL RANKING** IN THE NATIONAL CDE TOMORROW?

_____ OUT OF 175 CONTESTANTS.

9. HOW DO YOU THINK YOU WILL DO WHEN COMPARED TO THE OTHER TWO MEMBERS OF YOUR TEAM?

_____ FIRST OF THE THREE
_____ SECOND OF THE THREE
_____ THIRD OF THE THREE

10. HOW DO YOU FEEL ABOUT THE DIFFICULTY OF THE NATIONAL AGRICULTURAL MECHANICS CDE?

_____ TOO SIMPLE
_____ ABOUT RIGHT
_____ TOO Dll'FICULT

11. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **DURING CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

12. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **OUTSIDE CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

13. ESTIMATE HOW MANY HOURS YOUR TEAM HAS WORKED **TOGETHER** TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

14. HOW MANY ADULTS (EXCLUDING YOUR TEACHERS) HELPED YOU PREPARE FOR THIS CDE AFTER YOU QUALIFIED FOR THE NATIONAL CDE?

_____ ADULTS DIRECTLY HELPED COACH OUR TEAM.

15. IN WHAT GRADE DID YOU FIRST SET A GOAL TO PARTICIPATE IN A NATIONAL FFA CDE?

---

16. WHAT WAS **MOST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

17. WHAT WAS **LEAST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

18. IF YOU HAD IT TO DO OVER, WOULD YOU TRY TO QUALIFY FOR THE NATIONAL AGRICULTURAL MECHANICS TEAM?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

19. WHAT IS THE HIGHEST GRADE LEVEL YOU EXPECT TO COMPLETE?

_____ 11TH
_____ 12TH
_____ 13TH
_____ 14TH
_____ OTHER _____

_____ JUNIOR COLLEGE OR TECH SCHOOL
_____ COLLEGE/UNIVERSITY - B.S.
_____ COLLEGE/UNIVERSITY - M.S.
_____ COLLEGE/UNIVERSITY - Ph.D.
_____ OTHER, _____

20. IF YOU WIN A BRIDGESTONE/FIRESTONE TRUST FUND SCHOLARSHIP FOR POSTSECONDARY SCHOOL EXPENSES (TECHNICAL OR COLLEGE), WILL YOU ACCEPT IT AND CONTINUE IN SCHOOL?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

21. CHECK ALL OF THE HIGH SCHOOL MATHEMATICS CLASSES IN WHICH YOU HAVE BEEN ENROLLED:
_____ ALGEBRA I
_____ ALGEBRA II
_____ GEOMETRY
_____ MATH MODELS
_____ PRE-CALCALUS
_____ AP CALCALUS
_____ OTHER MATH COURSES, (NAME) _____

22. CHECK ALL OF THE HIGH SCHOOL SCIENCE CLASSES IN WHICH YOU HAVE BEEN ENROLLED:

_____ BIOLOGY I
_____ BIOLOGY II
_____ CHEMISTRY
_____ PHYSICS
_____ OTHER SCIENCE COURSES, (NAME) _____

23. ADDITIONAL COMMENTS? (PS: Thank you for providing this important information)

2003 NATIONAL FFA AGRICULTURAL MECHANICS

CAREER DEVELOPMENT EVENT

STUDENT INFORMATION SHEET

NOTE:	ALL INFORMATION IS CONFIDENTIAL AND WILL NOT **BE** REPORTED AS INDIVIDUAL DATA.

NAME: _____ STATE: _____

HOME ADDRESS: _____ SS#: _____-_____-_____

_____

_____

HOME TELEPHONE: (_____) _____

1. CHECK THE GRADE IN WHICH YOU ARE CURRENTLY ENROLLED:

_____ 10TH
_____ 11TH
_____ 12TH
_____ 1ST YEAR TECH SCHOOL
_____ 1ST YEAR COLLEGE/UNIVERSITY
_____ COMPLETED SCHOOL

2. CHECK ALL OF THE AGRICULTURE CLASSES IN WHICH YOU HAVE BEEN ENROLLED:

_____ 1ST YEAR, AG EDUCATION/AG SCIENCE
_____ 2ND YEAR, AG EDUCATION/AG SCIENCE
_____ 3RD YEAR, AG EDUCATION/AG SCIENCE
_____ 4TH YEAR, AG EDUCATION/AG SCIENCE
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____

3. HOW DOES THE NATIONAL AG MECHANICS CDE RELATE TO YOUR PREVIOUS HIGH SCHOOL AGRICULTURE CLASS INSTRUCTION?

_____ DIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ INDIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ LITTLE RELATIONSHIP TO OUR CLASSES.
_____ NO RELATIONSHIP TO OUR CLASSES.

4. IF YOU HAD IT TO DO OVER, WOULD YOU ENROLL IN AGRICULTURE?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

5. CHECK **ONE** STATEMENT WHICH BEST DESCRIBES YOUR CAREER CHOICE:

_____ PRODUCTION	_____ BUSINESS
_____ AG MECHANICS	_____ CONSTRUCTION
_____ AGRIBUSINESS	_____ TRANSPORTATION
_____ FORESTRY	_____ MEDICAL/LAW
_____ HORTICULTURE	_____ MILITARY
_____ OTHER, _____	_____ OTHER, _____

6. HOW MANY AGRICULTURAL MECHANICS CDE'S HAVE YOU COMPETED AT LOCAL, DISTRICT, REGION, AND STATE LEVELS?

_____ 1-3	_____ 7- 9	_____ 13-15
_____ 4-6	_____ 10-12	_____ MORE THAN 15

7. WHAT IS YOUR BEST ESTIMATE OF YOUR **TEAM'S RANKING** IN THIS NATIONAL AGRICULTURAL MECHANICS CDE?

_____ OUT OF 46 TEAMS

8. WHAT IS YOUR BEST ESTIMATE OF YOUR **INDIVIDUAL RANKING** IN THE NATIONAL CDE TOMORROW?

_____ OUT OF 176 CONTESTANTS.

9. HOW DO YOU THINK YOU WILL DO WHEN COMPARED TO THE OTHER TWO MEMBERS OF YOUR TEAM?

_____ FIRST OF THE THREE
_____ SECOND OF THE THREE
_____ THIRD OF THE THREE

10. HOW DO YOU FEEL ABOUT THE DIFFICULTY OF THE NATIONAL AGRICULTURAL MECHANICS CDE?

_____ TOO SIMPLE
_____ ABOUT RIGHT
_____ TOO Dll'FICULT

11. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **DURING CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

12. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **OUTSIDE CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

13. ESTIMATE HOW MANY HOURS YOUR TEAM HAS WORKED **TOGETHER** TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

14. HOW MANY ADULTS (EXCLUDING YOUR TEACHERS) HELPED YOU PREPARE FOR THIS CDE AFTER YOU QUALIFIED FOR THE NATIONAL CDE?

_____ ADULTS DIRECTLY HELPED COACH OUR TEAM.

15. IN WHAT GRADE DID YOU FIRST SET A GOAL TO PARTICIPATE IN A NATIONAL FFA CDE?

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16. WHAT WAS **MOST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

17. WHAT WAS **LEAST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

18. IF YOU HAD IT TO DO OVER, WOULD YOU TRY TO QUALIFY FOR THE NATIONAL AGRICULTURAL MECHANICS TEAM?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

19. WHAT IS THE HIGHEST GRADE LEVEL YOU EXPECT TO COMPLETE?

_____ 11TH
_____ 12TH
_____ 13TH
_____ 14TH
_____ OTHER _____

_____ JUNIOR COLLEGE OR TECH SCHOOL
_____ COLLEGE/UNIVERSITY - B.S.
_____ COLLEGE/UNIVERSITY - M.S.
_____ COLLEGE/UNIVERSITY - Ph.D.
_____ OTHER, _____

20. IF YOU WIN A SCHOLARSHIP FOR POSTSECONDARY SCHOOL EXPENSES (TECHNICAL OR COLLEGE), WILL YOU ACCEPT IT AND CONTINUE IN SCHOOL?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

21. CHECK ALL OF THE HIGH SCHOOL MATHEMATICS CLASSES IN WHICH YOU HAVE BEEN ENROLLED:
_____ ALGEBRA I
_____ ALGEBRA II
_____ GEOMETRY
_____ MATH MODELS
_____ PRE-CALCALUS
_____ AP CALCALUS
_____ OTHER MATH COURSES, (NAME) _____

22. CHECK ALL OF THE HIGH SCHOOL SCIENCE CLASSES IN WHICH YOU HAVE BEEN ENROLLED:

_____ BIOLOGY I
_____ BIOLOGY II
_____ CHEMISTRY
_____ PHYSICS
_____ OTHER SCIENCE COURSES, (NAME) _____

23. ADDITIONAL COMMENTS? (PS: Thank you for providing this important information)

2004 NATIONAL FFA AGRICULTURAL MECHANICS

CAREER DEVELOPMENT EVENT

STUDENT INFORMATION SHEET

NOTE:	ALL INFORMATION IS CONFIDENTIAL AND WILL NOT **BE** REPORTED AS INDIVIDUAL DATA.

NAME: _____ STATE: _____

HOME ADDRESS: _____ SS#: _____-_____-_____

_____

_____

HOME TELEPHONE: (_____) _____

1. CHECK THE GRADE IN WHICH YOU ARE CURRENTLY ENROLLED:

_____ 10TH
_____ 11TH
_____ 12TH
_____ 1ST YEAR TECH SCHOOL
_____ 1ST YEAR COLLEGE/UNIVERSITY
_____ COMPLETED SCHOOL

2. CHECK ALL OF THE AGRICULTURE CLASSES IN WHICH YOU HAVE BEEN ENROLLED:

_____ 1ST YEAR, AG EDUCATION/AG SCIENCE
_____ 2ND YEAR, AG EDUCATION/AG SCIENCE
_____ 3RD YEAR, AG EDUCATION/AG SCIENCE
_____ 4TH YEAR, AG EDUCATION/AG SCIENCE
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____

3. HOW DOES THE NATIONAL AG MECHANICS CDE RELATE TO YOUR PREVIOUS HIGH SCHOOL AGRICULTURE CLASS INSTRUCTION?

_____ DIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ INDIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ LITTLE RELATIONSHIP TO OUR CLASSES.
_____ NO RELATIONSHIP TO OUR CLASSES.

4. IF YOU HAD IT TO DO OVER, WOULD YOU ENROLL IN AGRICULTURE?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

5. CHECK **ONE** STATEMENT WHICH BEST DESCRIBES YOUR CAREER CHOICE:

_____ PRODUCTION	_____ BUSINESS
_____ AG MECHANICS	_____ CONSTRUCTION
_____ AGRIBUSINESS	_____ TRANSPORTATION
_____ FORESTRY	_____ MEDICAL/LAW
_____ HORTICULTURE	_____ MILITARY
_____ OTHER, _____	_____ OTHER, _____

6. HOW MANY AGRICULTURAL MECHANICS CDE'S HAVE YOU COMPETED AT LOCAL, DISTRICT, REGION, AND STATE LEVELS?

_____ 1-3	_____ 7- 9	_____ 13-15
_____ 4-6	_____ 10-12	_____ MORE THAN 15

7. WHAT IS YOUR BEST ESTIMATE OF YOUR **TEAM'S RANKING** IN THIS NATIONAL AGRICULTURAL MECHANICS CDE?

_____ OUT OF 46 TEAMS

8. WHAT IS YOUR BEST ESTIMATE OF YOUR **INDIVIDUAL RANKING** IN THE NATIONAL CDE TOMORROW?

_____ OUT OF 184 CONTESTANTS.

9. HOW DO YOU THINK YOU WILL DO WHEN COMPARED TO THE OTHER TWO MEMBERS OF YOUR TEAM?

_____ FIRST OF THE THREE
_____ SECOND OF THE THREE
_____ THIRD OF THE THREE

10. HOW DO YOU FEEL ABOUT THE DIFFICULTY OF THE NATIONAL AGRICULTURAL MECHANICS CDE?

_____ TOO SIMPLE
_____ ABOUT RIGHT
_____ TOO Dll'FICULT

11. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **DURING CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

12. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **OUTSIDE CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

13. ESTIMATE HOW MANY HOURS YOUR TEAM HAS WORKED **TOGETHER** TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

14. HOW MANY ADULTS (EXCLUDING YOUR TEACHERS) HELPED YOU PREPARE FOR THIS CDE AFTER YOU QUALIFIED FOR THE NATIONAL CDE?

_____ ADULTS DIRECTLY HELPED COACH OUR TEAM.

15. IN WHAT GRADE DID YOU FIRST SET A GOAL TO PARTICIPATE IN A NATIONAL FFA CDE?

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16. WHAT WAS **MOST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

17. WHAT WAS **LEAST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

18. IF YOU HAD IT TO DO OVER, WOULD YOU TRY TO QUALIFY FOR THE NATIONAL AGRICULTURAL MECHANICS TEAM?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

19. WHAT IS THE HIGHEST GRADE LEVEL YOU EXPECT TO COMPLETE?

_____ 11TH
_____ 12TH
_____ 13TH
_____ 14TH
_____ OTHER _____

_____ JUNIOR COLLEGE OR TECH SCHOOL
_____ COLLEGE/UNIVERSITY - B.S.
_____ COLLEGE/UNIVERSITY - M.S.
_____ COLLEGE/UNIVERSITY - Ph.D.
_____ OTHER, _____

20. IF YOU WIN A SCHOLARSHIP FOR POSTSECONDARY SCHOOL EXPENSES (TECHNICAL OR COLLEGE), WILL YOU ACCEPT IT AND CONTINUE IN SCHOOL?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

21. ADDITIONAL COMMENTS? (PS: Thank you for providing this important information)

2005 NATIONAL FFA AGRICULTURAL MECHANICS

CAREER DEVELOPMENT EVENT

STUDENT INFORMATION SHEET

NOTE:	ALL INFORMATION IS CONFIDENTIAL AND WILL NOT **BE** REPORTED AS INDIVIDUAL DATA.

NAME: _____ STATE: _____

HOME ADDRESS: _____ SS#: _____-_____-_____

_____

_____

HOME TELEPHONE: (_____) _____

1. CHECK THE GRADE IN WHICH YOU ARE CURRENTLY ENROLLED:

_____ 10TH
_____ 11TH
_____ 12TH
_____ 1ST YEAR TECH SCHOOL
_____ 1ST YEAR COLLEGE/UNIVERSITY
_____ COMPLETED SCHOOL

2. CHECK ALL OF THE AGRICULTURE CLASSES IN WHICH YOU HAVE BEEN ENROLLED:

_____ 1ST YEAR, AG EDUCATION/AG SCIENCE
_____ 2ND YEAR, AG EDUCATION/AG SCIENCE
_____ 3RD YEAR, AG EDUCATION/AG SCIENCE
_____ 4TH YEAR, AG EDUCATION/AG SCIENCE
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____

3. HOW DOES THE NATIONAL AG MECHANICS CDE RELATE TO YOUR PREVIOUS HIGH SCHOOL AGRICULTURE CLASS INSTRUCTION?

_____ DIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ INDIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ LITTLE RELATIONSHIP TO OUR CLASSES.
_____ NO RELATIONSHIP TO OUR CLASSES.

4. IF YOU HAD IT TO DO OVER, WOULD YOU ENROLL IN AGRICULTURE?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

5. CHECK **ONE** STATEMENT WHICH BEST DESCRIBES YOUR CAREER CHOICE:

_____ PRODUCTION	_____ BUSINESS
_____ AG MECHANICS	_____ CONSTRUCTION
_____ AGRIBUSINESS	_____ TRANSPORTATION
_____ FORESTRY	_____ MEDICAL/LAW
_____ HORTICULTURE	_____ MILITARY
_____ OTHER, _____	_____ OTHER, _____

6. HOW MANY AGRICULTURAL MECHANICS CDE'S HAVE YOU COMPETED AT LOCAL, DISTRICT, REGION, AND STATE LEVELS?

_____ 1-3	_____ 7- 9	_____ 13-15
_____ 4-6	_____ 10-12	_____ MORE THAN 15

7. WHAT IS YOUR BEST ESTIMATE OF YOUR **TEAM'S RANKING** IN THIS NATIONAL AGRICULTURAL MECHANICS CDE?

_____ OUT OF 46 TEAMS

8. WHAT IS YOUR BEST ESTIMATE OF YOUR **INDIVIDUAL RANKING** IN THE NATIONAL CDE TOMORROW?

_____ OUT OF 184 CONTESTANTS.

9. HOW DO YOU THINK YOU WILL DO WHEN COMPARED TO THE OTHER TWO MEMBERS OF YOUR TEAM?

_____ FIRST OF THE THREE
_____ SECOND OF THE THREE
_____ THIRD OF THE THREE

10. HOW DO YOU FEEL ABOUT THE DIFFICULTY OF THE NATIONAL AGRICULTURAL MECHANICS CDE?

_____ TOO SIMPLE
_____ ABOUT RIGHT
_____ TOO Dll'FICULT

11. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **DURING CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

12. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **OUTSIDE CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

13. ESTIMATE HOW MANY HOURS YOUR TEAM HAS WORKED **TOGETHER** TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

14. HOW MANY ADULTS (EXCLUDING YOUR TEACHERS) HELPED YOU PREPARE FOR THIS CDE AFTER YOU QUALIFIED FOR THE NATIONAL CDE?

_____ ADULTS DIRECTLY HELPED COACH OUR TEAM.

15. IN WHAT GRADE DID YOU FIRST SET A GOAL TO PARTICIPATE IN A NATIONAL FFA CDE?

---

16. WHAT WAS **MOST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

17. WHAT WAS **LEAST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

18. IF YOU HAD IT TO DO OVER, WOULD YOU TRY TO QUALIFY FOR THE NATIONAL AGRICULTURAL MECHANICS TEAM?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

19. WHAT IS THE HIGHEST GRADE LEVEL YOU EXPECT TO COMPLETE?

_____ 11TH
_____ 12TH
_____ 13TH
_____ 14TH
_____ OTHER _____

_____ JUNIOR COLLEGE OR TECH SCHOOL
_____ COLLEGE/UNIVERSITY - B.S.
_____ COLLEGE/UNIVERSITY - M.S.
_____ COLLEGE/UNIVERSITY - Ph.D.
_____ OTHER, _____

20. IF YOU WIN A SCHOLARSHIP FOR POSTSECONDARY SCHOOL EXPENSES (TECHNICAL OR COLLEGE), WILL YOU ACCEPT IT AND CONTINUE IN SCHOOL?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

21. ADDITIONAL COMMENTS? (PS: Thank you for providing this important information)

2006 NATIONAL FFA AGRICULTURAL MECHANICS

CAREER DEVELOPMENT EVENT

STUDENT INFORMATION SHEET

NOTE:	ALL INFORMATION IS CONFIDENTIAL AND WILL NOT **BE** REPORTED AS INDIVIDUAL DATA.

NAME: _____ STATE: _____

HOME ADDRESS: _____
_____
_____

HOME TELEPHONE: (_____) _____

1. CHECK THE GRADE IN WHICH YOU ARE CURRENTLY ENROLLED:

_____ 10TH
_____ 11TH
_____ 12TH
_____ 1ST YEAR TECH SCHOOL
_____ 1ST YEAR COLLEGE/UNIVERSITY
_____ COMPLETED SCHOOL

2. CHECK ALL OF THE AGRICULTURE CLASSES IN WHICH YOU HAVE BEEN ENROLLED:

_____ 1ST YEAR, AG EDUCATION/AG SCIENCE
_____ 2ND YEAR, AG EDUCATION/AG SCIENCE
_____ 3RD YEAR, AG EDUCATION/AG SCIENCE
_____ 4TH YEAR, AG EDUCATION/AG SCIENCE
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____
_____ OTHER COURSES, (NAME) _____

3. HOW DOES THE NATIONAL AG MECHANICS CDE RELATE TO YOUR PREVIOUS HIGH SCHOOL AGRICULTURE CLASS INSTRUCTION?

_____ DIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ INDIRECTLY RELATED TO WHAT WE STUDY IN CLASSES.
_____ LITTLE RELATIONSHIP TO OUR CLASSES.
_____ NO RELATIONSHIP TO OUR CLASSES.

4. IF YOU HAD IT TO DO OVER, WOULD YOU ENROLL IN AGRICULTURE?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

5. CHECK **ONE** STATEMENT WHICH BEST DESCRIBES YOUR CAREER CHOICE:

_____ PRODUCTION	_____ BUSINESS
_____ AG MECHANICS	_____ CONSTRUCTION
_____ AGRIBUSINESS	_____ TRANSPORTATION
_____ FORESTRY	_____ MEDICAL/LAW
_____ HORTICULTURE	_____ MILITARY
_____ OTHER, _____	_____ OTHER, _____

6. HOW MANY AGRICULTURAL MECHANICS CDE'S HAVE YOU COMPETED AT LOCAL, DISTRICT, REGION, AND STATE LEVELS?

_____ 1-3	_____ 7- 9	_____ 13-15
_____ 4-6	_____ 10-12	_____ MORE THAN 15

7. WHAT IS YOUR BEST ESTIMATE OF YOUR **TEAM'S RANKING** IN THIS NATIONAL AGRICULTURAL MECHANICS CDE?

_____ OUT OF 46 TEAMS

8. WHAT IS YOUR BEST ESTIMATE OF YOUR **INDIVIDUAL RANKING** IN THE NATIONAL CDE TOMORROW?

_____ OUT OF 184 CONTESTANTS.

9. HOW DO YOU THINK YOU WILL DO WHEN COMPARED TO THE OTHER TWO MEMBERS OF YOUR TEAM?

_____ FIRST OF THE THREE
_____ SECOND OF THE THREE
_____ THIRD OF THE THREE

10. HOW DO YOU FEEL ABOUT THE DIFFICULTY OF THE NATIONAL AGRICULTURAL MECHANICS CDE?

_____ TOO SIMPLE
_____ ABOUT RIGHT
_____ TOO Dll'FICULT

11. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **DURING CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

12. ESTIMATE HOW MANY HOURS YOU HAVE WORKED **OUTSIDE CLASS** TIME TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

13. ESTIMATE HOW MANY HOURS YOUR TEAM HAS WORKED **TOGETHER** TO PREPARE FOR THIS CDE **AFTER** YOU QUALIFIED FOR THE NATIONAL CDE.

_____ HOURS

14. HOW MANY ADULTS (EXCLUDING YOUR TEACHERS) HELPED YOU PREPARE FOR THIS CDE AFTER YOU QUALIFIED FOR THE NATIONAL CDE?

_____ ADULTS DIRECTLY HELPED COACH OUR TEAM.

15. IN WHAT GRADE DID YOU FIRST SET A GOAL TO PARTICIPATE IN A NATIONAL FFA CDE?

---

16. WHAT WAS **MOST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

17. WHAT WAS **LEAST BENEFICIAL** ABOUT YOUR PARTICIPATION IN THIS NATIONAL CDE?

_____
_____
_____
_____

18. IF YOU HAD IT TO DO OVER, WOULD YOU TRY TO QUALIFY FOR THE NATIONAL AGRICULTURAL MECHANICS TEAM?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

19. WHAT IS THE HIGHEST GRADE LEVEL YOU EXPECT TO COMPLETE?

_____ 11TH
_____ 12TH
_____ 13TH
_____ 14TH
_____ OTHER _____

_____ JUNIOR COLLEGE OR TECH SCHOOL
_____ COLLEGE/UNIVERSITY - B.S.
_____ COLLEGE/UNIVERSITY - M.S.
_____ COLLEGE/UNIVERSITY - Ph.D.
_____ OTHER, _____

20. IF YOU WIN A SCHOLARSHIP FOR POSTSECONDARY SCHOOL EXPENSES (TECHNICAL OR COLLEGE), WILL YOU ACCEPT IT AND CONTINUE IN SCHOOL?

_____ YES
_____ MAYBE, NOT SURE
_____ NO

21. CHECK ALL OF THE HIGH SCHOOL MATHEMATICS CLASSES IN WHICH YOU HAVE BEEN ENROLLED:

_____ ALGEBRA I
_____ ALGEBRA II
_____ GEOMETRY
_____ MATH MODELS
_____ PRE-CALCALUS
_____ AP CALCALUS
_____ OTHER MATH COURSE(S); (LIST) _____

22. CHECK ALL OF THE HIGH SCHOOL SCIENCE CLASSES IN WHICH YOU HAVE BEEN ENROLLED:

_____ BIOLOGY I
_____ BIOLOGY II
_____ CHEMISTRY
_____ PHYSICS
_____ OTHER SCIENCE COURSE(S); (LIST) _____

23. ADDITIONAL COMMENTS? (PS: Thank you for providing this important information)

VITA

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Address:	10692 N FM 487 Rockdale, TX 76567
Email Address:	tsclark60@hotmail.com
Education:	M.S., Agricultural Education, Texas A&M University, December 2007 B.S., Animal Science, Texas A&M University, December 2004